

# The Worldradio News

Vol. IV, No. 4

October 1974

50¢

## Amateurs Help Honduras

"There is a dire need of food and medicine in the city of Progresso". Such was a message heard on the amateur 20 meter band following the tragic floods in Honduras.

"Doctors are to be flown down there from McGill Air Force Base." That was the information from Paul Caton, W4ZRC, in Pinellas Park, Florida to Brian Salt, HR1JBS, in Tegucigalpa, Honduras.

Listeners to 14.320 MHz could hear (from Earl Cunningham, W5-RTQ) "A U.S. Air Force C-130 is leaving Ellington Air Force Base at 1500Z, will arrive in La Saba at 1915Z with 4 tons of clothing and 5 tons of baby food."

"A medical team is leaving Milwaukee on Saturday. They will have food, medicine and doctors." They are going to San Pedro Sulu." That message went from Charles Govin, W9HHX, in Wisconsin, to W4ZRC, in Florida, to Ruth de Paz, HR2-RP, in San Pedro Sula. That would give some hope to the people in the stricken city.

Later in the day, at 1745Z on 26 September, Ruth de Paz came on 20 meters with the chilling message, "The mayor's office says the doctors here are completely out of medication".

She gave a list of what they needed: oral polio vaccine, disposable syringes, vaccines against typhoid, tetanus and scarlet fever; antibiotics, sulfa tablets and vitamins for children. After the list was taken by W9HHX, Ruth, before returning to 2 meters to handle local messages, said, "We appreciate your interest."

Radio amateurs had read in the newspapers that 8,000 people in Honduras had already died in the aftermath of Hurricane Fiji and deaths by starvation were occurring. Roads to isolated areas were impassable. In the country of less than 3 million people, 350,000 people were considered refugees. Honduras is about the size of Pennsylvania.

At 1806Z a message came up on 20 meters that medical authorities in Honduras had to conduct a massive inoculation program reaching 200,000 people in a ten hour period. They sent out a call for the inoculation guns. At 1808Z

a message was sent down that one pharmaceutical company had donated 30,000 capsules of terramycin. At 1816Z it was announced that MARCO (Medical Amateur Radio Council) a group of doctors/amateur radio operators, would meet on 14.250 MHz and 21.385 MHz to coordinate the inoculation effort. A Florida station told that technicians and doctors would be leaving from Tampa.

At 1826Z Rudolph White, WA5-LDG, in Baton Rouge, LA, made a phone patch from Bob Findlay, a representative of the Governor of Louisiana, to HR1JBS, Findlay said he would fly a private jet aircraft to San Pedro Sula loaded with insulin and cardiac drugs. He would be taking off in 20-30 minutes and would be there in 4 hours.

Honduras has but 181 amateurs, many of them had been operating 24 hours non-stop. Among the amateurs handling net control in the U.S. for extended periods of time were Eleanor Horner, K4RHL; Joe Hertzberg, K3JH; and Leslie Hamann, WB8MBM.

Messages were handled for the U.S. State Dept., Salvation Army Red Cross, Venezuelan doctors, Seventh Day Adventists, Lions International, Direct Relief Foundation, Amigos de las Americas, the Houston Medical Association, just to mention a few.

While the emergency traffic was handled on 14.320 MHz, the personal inquiries or as they were termed "health and welfare" messages were handled on 14.280 and 14.313 MHz. The various nets that operate on those frequencies turned their facilities and abilities over to handling the messages.

One such searching inquiry was from a woman whose husband was in Honduras on business, she had not heard from him. One message back told that the 3 Peace Corps volunteers that were inquired about were OK. And then there are, in such cases, messages that do not bring back good news.

At 1903Z, Leonard Turner, WA5-EZQ, in Biloxi, MS, came on frequency and said that local doctors would like a list of needed medical supplies. K3JH moved him off the net frequency and gave him the list. (Please turn to page 2)

## OSCAR 7 Navassa Going Up

by Joe Kasser, G3ZCZ/W3

The seventh Orbiting Satellite Carrying Amateur Radio is due to be launched at the end of October. Launch date at the time of this writing is 29 October 1974, just two years after the launch of AMSAT-OSCAR 6.

With the launch of AMSAT-OSCAR 7, the Amateur Satellite Service enters a new era. For this spacecraft has features that have not been seen in the OSCAR series before. AMSAT-OSCAR 7 carries two transponders, it carries a telemetry encoder to convert the spacecraft status information into teletype code, allowing direct printout at 60 wpm at all amateur stations equipped with suitable equipment.

AMSAT-OSCAR 7 is an international spacecraft in the true sense. It was designed and built by amateurs in the USA, Canada, Australia and Germany. Final assembly took place in the basement of Jan King, W3GEY, the project manager for AMSAT-OSCAR 7.

It took 4 years and \$60,000 to build the spacecraft. Schedules were kept on the amateur bands between AMSAT in Washington, DC and the builders of the various sections of AMSAT-OSCAR 7.

AMSAT (The Radio Amateur Satellite Corporation) is a non-profit organization based in Washington, DC dedicated to the design and fabrication of amateur spacecraft. AMSAT has nearly 2,000 members in over 56 countries and affiliate organizations in a number of countries including Germany, The Netherlands, Great Britain and Japan.

AMSAT-OSCAR 7 carries two transponders and four tracking beacons. It carries a 2 meter to 10 meter transponder similar to the one still in use on OSCAR 6 with a slight frequency change. Input frequencies are 145.85-145.95 MHz; output frequencies are 29.40-29.50 MHz.

The second transponder relays signals received on an input frequency passband of between 145.975 MHz and 145.925 MHz. This transponder was designed and built in Germany.

Two of the four beacons are associated with the two transponders. These beacons are on 29.50 MHz and 145.98 MHz. The prime tracking beacon (at least as far as post-launch operations are concerned) was designed and built in Canada and is on a frequency (please turn to page 28)

KC4NI - NAVASSA ISLAND

by Joe Duffin, W2ORA

The planned DX expedition to Navassa Island for the last week in November 1974 is progressively moving forward. Final approval for the trip to the island has been received from the U. S. Coast Guard and the FCC has assigned the unique call sign KC4NI. The plan is to fly from Philadelphia to Kingston, Jamaica and charter a boat to Navassa Island which is located 70 miles from the coast of Jamaica and 30 miles from the coast of Haiti. Depending upon weather and ocean conditions the operation from Navassa Island could start as early as Sunday, 24 November and continue thru Friday, 29 November. By popular request 160 meter operation is being added.

The operating team on the island will consist of: Sy Anler, W2GEY; Frank Adler, WB2BXV; E. Miles Brown, W2PAU; Bill Gallick, K2FT; Amor Klotzbach, W2FYS; and Joe Duffin, W2ORA.

Arrangements are being assisted by Lloyd Alberga, 6Y5LA, in Kingston. The QSL Manager is Bill Gallick, K2FT, 17 Coles Avenue, Cherry Hill, N. J. 08034. SASE is requested.

Expenses are running much higher than expected (inflation has driven the total cost near \$6,000) and contributions via the QSL cards will be sincerely appreciated.

Transmitting frequencies will be near the low end of the Extra, Advanced and General Class bands (CW & SSB). The transmitting frequency will be changed as required to accommodate band conditions and activity. KC4NI will listen 5 to 10 kHz up or as announced. At low activity levels, KC4NI will listen on frequency.

Navassa Island is United States property under the jurisdiction of the U.S. Coast Guard and lies about 90 miles from Cuba, 75 miles from Jamaica and 30 miles from Haiti. The only installation on the island is an automatic unattended navigational light operated and maintained by the U.S. Coast Guard. The island has a rugged terrain consisting of sharp limestone rocks, scrub trees and cactus. The island is uninhabited and lacks a potable water supply or any living facilities. The landing from a small boat may be accomplished only under the most favorable sea conditions. The only possible landing at the island (Lulu Bay), is not a landing in the usual sense of the word, but a place where a boat can be held long enough for men to jump on a wire rope ladder that dangles (please turn to page 9)



## Walker's Proposals

(Note: An attempt will be made to cover the highlights of the talk by A. Prose Walker, W4BW, Chief, Amateur and Citizen Band, Federal Communication Commission, before the Texas VHF-FM Society at Irving, Texas, 3 Aug. 1974. He presented himself well in the more than 3-hour speech to some 500 amateurs. The one-and-a-half hour question and answer session was ably handled by Mr. Walker with competent information skillfully dispersed. de Dean Davis, W5BGE.)

"Today, with your permission, I would like to review some things that have happened in recent months in the Amateur and Citizens Division and go into a few things that probably will happen in the future.

I know that regulations have been a subject of concern ever since Docket 18803, but the increasing complexity of the FCC rules and always it seems the greater the involvement of the Commission in attempts to avoid chaos in the spectrum or, as it is often said, provide for the "interest, convenience and necessity" of the American public, I say that's a bureaucratic way of saying what government thinks is good for the common man!

I'm also going to tell you in a few minutes about a proposal to restructure the amateur service. I can't get into all the details because it would take too long. If there are any of you who did not read Jack Mason's editorial comment in the last issue of the Texas VHF-FM magazine, I urge you to do so because that was an extremely well premised and carefully planned group of thoughts. He was talking about the restructuring which takes into account a possible no-code amateur license. If you haven't read it, get your issue and read it. (please turn to page 4)

JAMES MAXWELL W6CUF  
P O BOX 473 C00588 0177  
REDWOOD ESTATES CA 95044



## FCC

### INTERNATIONAL AMATEUR RADIOCOMMUNICATIONS

Information has been received by the Commission that the Republic of Vietnam has informed the United States Embassy at Saigon that amateur radio station XV5DA may conduct amateur radio communications with U. S. licensed amateur radio stations.

Accordingly, the Commission has no objection to amateur radio stations licensed by the Commission conducting amateur radiocommunications with station XV5DA, Saigon, Republic of Vietnam.

## Honduras

(continued from page one)

One of the stations putting in many long hours of traffic handling was WB4ICJ, the club station at the Kennedy Space Center.

This account is of course but a fragmentary one as concerns the role of Amateur Radio. Next month we hope to have more details furnished by Worldradio subscribers in Honduras.

The news media made several mentions of Amateur Radio and one network TV news showed pictures of an amateur station receiving traffic.

There was a write-up in the club bulletin of the Dayton, Ohio, ARC. (That is an area that knows disaster, Xenia, Ohio is but 12 miles away). The RF Carrier said:

"We hope that some of the smaller nations who are going to the International Telecommunications Conference in 1979 will observe these operations and not come up with those negative votes as has been done in previous conferences. Time and time again, it is shown that Amateur Radio is needed on a world-wide basis. We hope they get the message soon before the emergency happens at their doorstep."

In the face of all the amateur good works such as in the Nicaragua earthquake, Worldradio has learned that a student at USC made his doctoral dissertation on the subject of amateur frequencies not being justified, and we have heard that he has been circulating it to nations that will be at the next conference. When we are able to obtain a copy of the paper we will write more about it.



## ARRL

From the earliest days there has probably been no more significant contribution by our clubs to the future of amateur radio than the conduct of code and theory courses for new amateurs. Countless thousands of boys and girls, men and women, have joined the amateur ranks by this route. And, by and large, these have been our most ardent amateurs, the core of our organized activities, because the courses have not only given them a solid foundation in the necessary knowledge and skills, but -- equally important -- have exposed them to our unique traditions.

Right now, more than ever, we need an influx of good, new amateurs. We are faced on the one hand with a decline -- for a variety of reasons -- in the total number of licensed amateurs. FCC says there is a net loss of 350 per month, which is more than 4000 per year! On the other hand, we have mounting pressures on our frequency allocations and operating privileges, especially from groups larger than we are.

So I urge all clubs who have not conducted code and theory courses for prospective Novices, or who have let their programs lapse, to organize, schedule and publicize classes in their communities.

All the tools necessary are available from Headquarters, including the "Instructor's Guide to Amateur Radio Licensing Classes", which contains course outlines and considerable background information on procedures. There are also films and other training aids to assist course programming.

Let's keep the future of amateur radio in dedicated, capable hands by starting off our newcomers right!

Sincerely yours,

Harry J. Dannals, W2TUK  
President

The 1974 edition of the ARRL Repeater Directory is available. Your copy may be obtained by sending to ARRL Headquarters a large, self-addressed envelope (to permit mailing flat) with 30¢ postage for first-class service. The directory has been completely updated and contains nearly 1000 repeater listings, addresses of frequency coordinators in various areas, repeater councils and the members of the ARRL VHF Repeater Advisory Committee.



## Events

1974 Pacific Division Convention and Greater Bay Area Hamfest. 26, 27, 28 October, at the Royal Coach Motor Hotel, San Mateo, CA. Keynote speaker is A. Prose Walker, W4BW, Chief Amateur and Citizens Division, FCC. Other speakers include: Bill Orr, W6SAI, Antennas and Propagation; Ed Peck, K6AN, Towers, Zoning and the Law; Chuck Townes, K6LFH, Sister City International Program; Marion Henson, W6NKR, State RACES Director, Amateur Disaster Conference; Art Fury, WA6JLJ, Integrated Circuits and others. There will also be: main banquet, contests, prizes, exhibits, swap tables, ladies program, ARRL forum and more including an OSCAR-AMSAT space symposium.

### PLAN WAY AHEAD

Mix a lot of pleasure with your fun. Combine a vacation in Canada's beautiful Rocky Mountains with your 1975 ham convention plans. The Calgary Amateur Radio Association will host an international meeting on Friday, Saturday, and Sunday, August 1, 2, and 3, 1975 - Calgary's centennial year.

It will include a Canadian Division ARRL meeting, a CLARA meeting, and other groups not yet confirmed. In addition to the technical meetings, surprises, exhibits and banquet, there will be several on-the-air contests. For the family there will be a full two days program for the ladies and for all children (3 age groups). Watch for additional information in "Worldradio", or write, 75CONVEN, Box 592, Calgary, Alberta.

EL PASO, TX - Amateur Radio Convention, 12, 13 October 1974. Will be held at the New Villa Motor Hotel. The Hamfest is on Saturday and the Swapmeet is on Sunday. Seminars, Displays and Demonstrations. Many other attractions normally associated with an amateur get-together. Contact: Noel Armstrong, WB5CMB, 7772 Gran Quivira, El Paso, TX 79904. Phone: (915) 751-7825

## JA

The 2nd of February 1975 marks an anniversary in Amateur Radio. It was on 2 February, 50 years ago that the first two-way radio communication was accomplished between the United States and Japan, and it was done by amateurs. Let's use 2 February 1975 to send special greetings to our friends in JA land.



## around the world

### A PEEK INSIDE MOSCOW BOX 88

by J. L. Carrell, ZL1HL

During a round-the-world tour I was fortunate in meeting radio amateurs in the USA, Britain, Germany, Hungary, Romania, the Soviet Union and Japan. These contacts included operating a DL station set up in a bus just outside the Hanover Fair, and a visit to JARL headquarters in Tokyo. But perhaps the most interesting experience was a visit to the headquarters of the Central Radio Club of the USSR, during a three-day stay in Moscow.

The headquarters building is situated 15km (about 9 miles) from Red Square which is generally accepted as the centre of Moscow, a city of 74 million people.

The meeting was arranged through the offices of Intourist (the Government tourist agency) situated in the hotel. This hotel, the "Rossia", a few minutes walk from Red Square, must be one of the world's largest as it is able to accommodate three thousand guests.

My journey to "Box 88" was by metro, the underground railway, and taxi, and was not without considerable difficulty due to the language barrier. This is many times the problem than it is in most West European countries where English is fairly widely spoken. Of course another problem which is not obvious until encountered is the use of a different alphabet.

An interpreter, who worked at the nearby Aeronautics Club was on hand for my visit and during the meeting I met a ham from an outlying republic who had flown in to Moscow to compete for his district in a VHF contest.

I believe the Club, like sports groups in the USSR and other East European countries, has substantial financial support from the government but unfortunately I was unable to gather any specific facts about this due to the language difficulties, even with the aid of the interpreter.

At the Club headquarters a full-time staff of 18 is employed in a building of 1,800 square meters (about 19,000 square feet) on two or three levels.

Apart from administrative offices, the building houses a library of 48,000 references (please turn to page 14)

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# action in amateur radio

## storm

by Charles Cotterell, W0SIN

A heavy snowstorm hit Rangely, Colo., and tore up enough long-distance phone lines to isolate the city from communication with the rest of the world. Who stepped in? Yes, the amateurs.

Norman Neel, W0QOT, was "the man" in Rangely and provided the outlet for about 10 important messages during a 2-1/2 day period. The FCC was requested to waive the regulation that prohibits commercial type messages and this was granted. Phone calls to Rangely during that time ended in Craig, where the chief operator turned them over to Eve Tileston, WB0ELD, who was always in contact with Neel, who in turn could relay messages around the city. (The phones inside Rangely were okay.)

In this instance, all the communications were carried out on the high-frequency bands assigned to the amateurs. There wasn't a need for other frequencies. But that isn't so in most times of emergencies. Today the VHF and UHF frequencies are used, and the amateurs find it difficult to understand why anyone would wish to reassign any amateur frequency to some other service. Yet it is happening.

It is in the public interest to keep these frequencies and to even add to them. Perhaps it's because the amateurs hardly ever receive any recognition of their unselfish efforts to do as the FCC regulations require.

## WCARS AIDS SEARCH & RESCUE

About 3:30 p.m., a helicopter carrying three men crashed near the Big Horn Mine, in a very remote area about 30 to 40 miles east of Lone Pine, CA.

One man was killed, the pilot was injured (badly burned hands and a broken arm), while the third man was only bruised. The latter hiked out, which involved coming down a steep canyon with waterfalls and brush, to the camp of some miners who drove him to Lower Warm Springs in Saline Valley, where Al Weber, K6KJV, was camped. The survivor arrived there about 10:30 a.m., and Al immediately got on the air and checked into WCARS, with Howard Lakey, WB6RJK as net control. WA6DRG, in El Cajon, called the FAA, and after some confusion in the local office about which base line to use on the geodetic maps, the wreck was found by the searching helicopters at about noon.

However, the injured pilot, who had been left in the shade with water, was missing. He had become delirious, thought he had been there two days, and hiked out. Because of his injuries, his progress down the canyon consisted of rolling down the steep spots. Miraculously, he survived, and wandered into the miners' camp; they brought him to Al's camp about 5 p.m. With short skip out, he got a station in Los Angeles to phone Bishop (charging it to Al's home phone), and the car taking the pilot out (a difficult 3 hour drive) was met by a helicopter, which took him to the hospital for emergency care, after which he was transferred to the Loma Linda burn unit, where he is recovering.

## identification

**The Worldradio NEWS**  
is a global communications service

The Worldradio News is published monthly by Worldradio Associates, 2509 Donner Way, Sacramento, CA 95818. Subscription \$6 per year. Controlled circulation postage paid at Sacramento, CA. October issue.

## jungle

Syl Connolly, W1MD, played a major role in establishing communication for a couple who narrowly escaped a jungle death. The two, Gerald Fitzgerald and his wife Holly, were stranded alone on the shores of an unknown lake near Riberalta, Bolivia, for 26 days. Two hunters found them suffering from exhaustion and malnutrition, weak and barely able to walk. The Fitzgeralds were brought to Riberalta, where Brother Casimir, CP8AB, relayed the information concerning their discovery to Mr. Fitzgerald's mother in Newton, Mass., by way of W1MD, Syl Connolly in Hingham, Mass. Syl Connolly was recently elected to the Directorship of Partners of the Americas.

## WB4EZZ DOES IT AGAIN

A third degree burn case developed in Quito, Ecuador. Sulfamylon cream was sought and found unavailable locally. Carlos Aurelio Cajiao, HC1CV, a MARCO member, took action to promptly procure a pound can of the medication. He succeeded in contacting Eduardo Cabrera, YV5AXU, also a MARCO member, in Caracas, Venezuela, who tried to locate the medication. Unable to find it in Caracas, Eddie promptly referred the request to Sol Katz, WB4EZZ, a pharmacist and MARCO member in Miami.

The message was received by WB4EZZ about 6:00 p.m. when most sources of supply were closed for the day, nevertheless he obtained the medication and it was delivered by messenger service in time for an airline departure at 3:00 a.m. In the meantime, Quito had taken action to direct the airlines to accept the medication in Miami and place it on the next available flight. HC1CV, Carlos in Quito, was then notified by relay on the Intercontinental Net regarding the flight number and the early morning arrival time.

The following morning, Millie, HC1AD, a new MARCO member, was found on the Intercontinental Net. She was advised to also alert HC1CV, Carlos, of the arrival of the package. Millie replied that Carlos wished to thank the MARCO members involved and would see that no delay occurred in getting the medicine to the patient.

The total elapsed time was less than fifteen hours from the request to Miami to the delivery in Quito. Credit for such prompt action must also be given to the Intercontinental Net for their help since most of this time twenty meters was "dead" for direct contact between Quito and Miami.

(MARCO Bulletin)

"People can be divided into three groups; Those who wonder what happened, those who watch things happen and those who make things happen."

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## E-com

by Woodrow Huddleston, K4SCL

The recent heavy rains throughout Florida produced considerable property damage with flooding in many low places and the necessity for evacuation in a few places.

We know that the Red Cross opened emergency shelters in Pinellas County, as well as near North Port. Some staff personnel were transferred to assist stricken areas. The governor made inspection trips and declared disaster areas, asking the federal government for disaster relief funds. The extent of this kind of emergency action is not known to me at present, but we have the distinct feeling that there was a lot more going on than we are aware of.

I know that certain local governments were hard-pressed to provide needed communications to coordinate their required emergency action for protection of life and property and to efficiently perform necessary clean-up operations.

I am confident that had an Emergency Coordinator stepped forward and offered the services of a trained and capable AREC, we could have gotten a lot of good practical experience under quasi-emergency conditions a great deal less strenuous than we would experience in the event of a disastrous hurricane. I have chided a couple of our EC's by asking for a copy of their report on AREC operations during this episode. No response, yet, I think we missed a most wonderful opportunity for a great deal of experience and training at a local level.

On a broader area, we did get in some training. Red Cross Miami asked Amateur Radio to provide back-up communications with areas believed to have considerable flooding along the west coast of Florida within about 100 miles south of Tampa. K4IWT (American Red Cross Amateur Communications Society) received this request and proceeded to establish a net on 3940 KHz SSB, calling it first "The Red Cross Net", then TPTN, then FAST Net. This operation was characterized by most operators being unwilling to believe there was an emergency situation and by W4IWT and Michael Lee's, K4WKY, dogged insistence that they had a mission to provide back-up communications. It worked out satisfactorily. We did establish communications, handle several priority messages, learn about some flooding previously unknown, and receive for it all a commendatory message from the Disaster Director, Southern Florida Division, American Red Cross. But I feel uneasy about it all. We should have done better. We should have been better organized. We should have followed a master plan.



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The master plan for long range emergency communications within the state of Florida, and for liaison to interstate nets, involves activation of the Florida Amateur Side-Band Emergency Net (FSBEN). This net should be activated when emergency communication beyond the range of local AREC nets is required. Vance Vogel, W4OVE, manager of FSBEN, was on 3940 listening to our drill, but nobody asked him to "activate". We should have. FSBEN needs the drill as much as any other net. Furthermore, we should all be more aware of the position of FSBEN in the emergency communications picture.

In the event of a bona fide emergency, the FSBEN will be activated. Other nets will give way to its operation. Trained operators who got their training mostly on other nets, will check into FSBEN and be assigned key roles commensurate with their ability and location. The thing will go, not because the FSBEN spends many hours each week training operators, but because the operators who spend many hours training each week will become part of FSBEN. There will not be several nets in competition for use of the frequency, because the operators who are usually on the several other nets will be on FSBEN. Qualified net control stations from the other nets will be NCS on FSBEN, under direction of FSBEN manager and his assistants. Managers of the other nets are automatically assistants to the FSBEN manager for these operations. Expert traffic handlers from the other nets will be expert traffic handlers for FSBEN. I didn't invent this idea, but I kind of wish I had. This plan provides more and better operators than any one net could possibly do. It allows everybody to do the thing they like best until the chips are down. They do what they do best, where they are most needed. If you have a better plan, why don't you propose it? Are you willing to do the work necessary to make it go?

As SCM, perhaps I should be pushing for an ARRL-controlled net. I am not. We have a going thing here. Let's make it work and don't neglect opportunities to exercise it.

(Florida Skip)

## BOAT RESCUE

by Katashi Nose, KH6IJ

Amateur radio was responsible for the rescue of the trimaran Chevard en route from Ensenada, Mexico, to Honolulu. Luiz Vega (KH6IDI) reports that the Coast Guard was alerted via amateur radio by Richard Dobbs, WB6ILD of California.

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# proposals

(continued from page 1)

Now, what's happened in the last few months? We have changed our rules in respect to keeping of logs, not just for repeaters, not just for mobiles, but for all amateur stations. Now, I don't think that the average amateur on HF for example, who is a DXer, is going to stop keeping a log. I'm not going to stop keeping a log and probably most of you won't. But this was brought about by several petitions that pointed out when you are mobiling, it is downright hazardous to keep a log, and what purpose does it serve anyway? So we checked with our Field Operations Bureau people and we asked them if they had any real occasion to use amateur logs in their enforcement law suits and operations. Looking back, they said, "Only very occasionally". Now, if that's the case, there's probably no future basis for the Commission rule requiring you to keep the kind of log which has been required for all these many years. Now, you may wish to keep the log just exactly as you have been, and there is no reason why you should not do it if you desire it. If you don't want to, you don't have to in the future.

I am sure you were happy to hear earlier this afternoon that the Emergency Medical Service did not cut into the amateur bands in the 420 to 450 MHz, as was quite generally believed and on good basis might happen when this was proposed.

We are expanding the number of amateur examination points by a special arrangement at the present time on a trial basis with the Civil Service Commission, who is to give the amateur examination in Anchorage, Chicago, Detroit, Seattle and Honolulu. If this works out on a trial basis for the CSC to give the exam rather than the FCC, I think you could look for an extension of that arrangement throughout the U.S. If we do this it will increase the number of examining points from 68 up to nearly 900. Then there will be scarcely anybody outside the 75 mile radius for an examining point.

We have granted the first license to an amateur satellite under our proposed amateur rules, W3OHI. They like to be identified by just HI. Well, whether or not that's the right thing, we decided to give them a call with HI on the tail end and then they can just eliminate the W3O, so at least for Oscar VII, they will be able to identify Oscar VII, which I believe is to be launched in October.

The RACES situation -- I am sure many of you are interested in that. If it goes through as we have proposed, it will be a tremendous simplification of the procedures and will put the Radio Amateur Civil Emergency Service really back in the hands of the amateur radio where it belongs, without all the complex structure of organization and licensing which has been in effect for many years.

We also have done a few things I think that are in the right direction for repeaters. We have issued over 1000 licenses. We have made proposals on linking, even though we don't know of even two repeaters that are linked. We have issued a notice of proposed rule-making on crossbanding. My own personal feeling on it is that if you only use one pair, I think you are using the spectrum in an efficient manner. But if you get beyond one pair of frequencies, I think there is a question. I am not a doomsday artist, the day may come when a lot of people are after these very useful frequencies that we have in the V and UHF areas, and if we are not using them efficiently that will be just another nail in our coffin, perhaps which will not be used to our advantage in respect to their defense. You know, of course, that the forms we used in standardized remote control methods have been standardized so that it is real easy to process these. A great many of the things are now nothing but log entries for you, rather than information previously under Docket 1803 we asked you to submit to Washington.

We have made a proposal to establish a special events station as a regular amateur station - of course, it will cost you something to get a license -- but we have been faced with, of course, some subjective judgments all the time whenever some guy writes in and says, "Look, we want to celebrate anything from going up the Mississippi River in a submarine to selling Christmas trees", and they want a special event call sign for it and that always put the monkey on our back as to whether or not it complies with what the rules say. So we are trying to take it out of the subjective area that we have to exercise whenever we get a request like that.

I'm sure you have all heard about the proposal to allow Extra Class licensees to pick their own call and to have a second call in the 1 by 3 category. What's the rationale behind it? In case you haven't read it, you know ever since 1968, Extra Class licensees who have been in the game for 25 years could apply for and receive a two letter call. A period of time has gone by and we believe that those Extra Class licensees with 25 years of service who are interested in obtaining a two letter call have exercised their option or do not intend to, or they think so much of their old call that they do not want to give it up and that, of course, is their privilege. We have a whole batch of two letter calls laying around in each district and we couldn't think of anything better than to use this as a part of incentive license program. So when the notice of proposed rule-making comes to your attention, please say what you think, because we want to know.

The Class E Citizens Radio Service which was proposed 3 or 4 years ago, which proposed to take some space out of our 220 MHz band, is showing some signs of wiggling around again. We thought the thing was fairly quiet, and it was for a while, but I see signs now that there will be increased attempts made to revive the Class E Proposal and I even think that it will not be 1 MHz, but in all likelihood 2 MHz, 223

to 225, so you might keep your eyes open in the future.

Now, about the Amateur Radio Advisory Committee, which I am sure you have all heard about. The request to establish that committee has to come from the Commission. It has already been initiated and is in the mill at the present time. The charter for this amateur radio advisory committee is in draft form and the item is to be placed before the Commission on its agenda for the consideration of this committee. This is one that will operate in a formal manner, with the members being able to provide the Commission with information so that in the end we could provide a much better set of rules and regulations for the amateur service which I am sure you will all agree with. The membership on the committee would have to be balanced in terms of their points of view and their different interest in amateur radio. We will, of course, attempt to get knowledgeable people, professional, if you will, on the committee so that their viewpoints would hold water and carry respect.

You all know what the present license structure is. We begin with the Novice license, and that's in the HF area. We have Technician Class which is in the UHF-VHF area. Then we have the General and Conditional Class which according to the rules can operate on either HF or VHF. We have the Advanced Class which is in both HF domain and microwave domain. Then we have the Extra Class which is the granddaddy of them all. So keeping this in mind as we think about this structure -- where do we go? Why do we want to restructure the amateur service? Why do we want to further complicate the amateur structure? Let's see if I can answer that this afternoon. Note, if you please, since 1968 the policy of the FCC in the amateur service has been what is called incentive licensing. Now the only incentive that has been offered over the years has been in the HF area. The Technician Class which operates in the VHF area has no incentive. It seems to us as



we evaluate the privileges and requirements that in order to have a truly reasonable system of licensing in the amateur service, we should extend the incentive licensing policy up to the UHF-VHF area, also.

You might wonder what is the distribution of amateurs and by the way, there are 255,111 of us. The distribution according to class of licenses: 8.5% Novices, 19.1% Techs, 42.5% General or Conditionals, 23% Advanced, and 5% Extra Class. The examinations are being revised as rapidly as we can. We are trying to make sense of them. By the way, there will be an increased emphasis in this restructure proposal on measurements.

One of the things that came to our attention when we began to analyze some statistics was that we are losing amateurs. Overall, we are losing about 350 a month. If this is the trend, I think the amateur service is going to be in deep trouble. What can we do about it? We think if the restructuring proposal goes through either as we propose it, or in a modified form, depending upon your comments that it will not take too long before the number of amateurs will be doubled, and probably in a 5 year period. I fully expect the number of amateurs in the U.S. will reach one million.

Let's look at how you may proceed with the restructuring. On the VHF-UHF side we have the Communicator, the Technician, and finally, the Experimenter. Let's say the Communicator will not have any code requirement. He will have to pass only an examination on what he needs to know to operate his station when he first gets on the air. His privileges will be restricted, in terms of power. They would be restricted in terms of emission. I expect it would probably be proposed as F3 emission. I think this would attract a great many good CBers into the amateur ranks. If the Communicator class, for example, wants to move up to Novice, there are a couple of things he would have to do. He would have to take the examination on whatever the theory and regulations that are applicable to the Novice examination, as well as the CW requirements. The Novice, if he wants to move up, and if he wants to operate in both the short wave domain and the microwave domain, could get an endorsement on his existing license that said you have now passed 13 wpm, or you have now passed the theory examination that indicates you know what a duplexer is, etc. So you could, I suppose, have a system in which you could provide endorsements on the man's license. This is the one we favor where we have a parallel system. The kind of incentive things we have at the present time in the HF series applies also to the VHF-UHF series, and it would be based upon privileges, achievements and requirements, and it is entirely conceivable to me, eventually, the licensee of a repeater station would have to hold the Experimenter Class (please turn to page 9)

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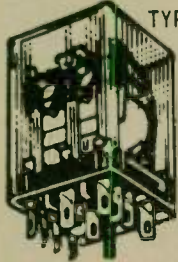
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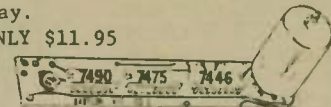
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 Allende, Mexico  
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 Venice - Venice, Italy

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 " - Rio de Janeiro, Brazil  
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 Macon - Macon, France  
 Marietta - Heredia, Costa Rica  
 " - Linz am Rhein, Germany  
 Savannah - (Pending)  
 Thomasville - Luneburg, Germany

### HAWAII

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 Japan  
 " - Mackay, Australia  
 " - Cheju Island,  
 Korea  
 " - Leganzpi, Philippines  
 " - Hualien, Taiwan  
 Honolulu - Bombay, India  
 " - Bruyeres, France  
 " - Hiroshima, Japan  
 " - Kaohsiung, Taiwan  
 " - Laoag, Philippines  
 " - Naha, Okinawa  
 County of Honolulu - Seoul, Korea  
 Maui County - Hachijo Jima, Japan  
 " - Hiyakojima, Japan  
 " - Quezon City, Philippines  
 " - Bacarra, Philippines

### IDAHO

Idaho Falls - Zambales, Philippines  
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(Continued in next month's issue)

The Worldradio News, October 1974

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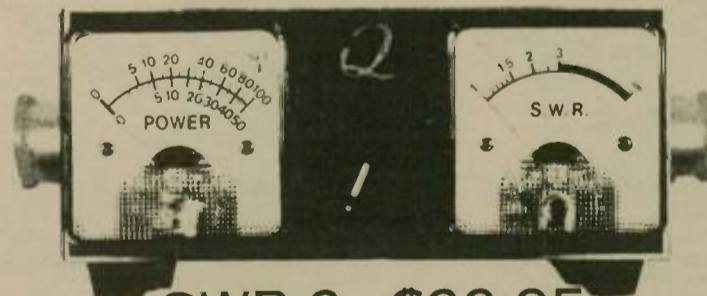


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# international friendship in amateur radio



Virgil Samsal, K9ACQ; Marvin Bartz, W9MYG; George Menart, K9YXA; Tat Mochiki, JH1FEL and Christopher Kluck, WB9GUG



Marvin Bartz, W9MYG; Christ Bauer, W9NVJ; Christopher Kluck, WB9GUG and Michael Filipiak, WB9JLL

## JH1FEL T. MOCHIKI



JH1FEL is guest of the Sheboygan County DX association

by Art Pahr, WA9UEK

A guest of the Sheboygan County (Wis.) DX Association the weekend of 3-4 August was Tatsuo "Tat" Mochiki, a 22-year-old electrical engineering student from Tokyo, Japan.

Tat's visit to Sheboygan County, was the result of several QSO's with George Menart, K9YXA. Once it was known that Tat would be working during the summer at an International Boy Scout camp at Wild Rose, Wis., George made arrangements for Tat to be the guest of the SCDXA for the weekend.

During his visit, Tat toured the city of Sheboygan, visited radio station WHBL where the chief engineer is SCDXA president, Christ Bauer, W9NVJ, and enjoyed a bratwurst fry in his honor.

Tat gave his overwhelming approval to the bratwurst which is a local delicacy--a specially seasoned pork/beef sausage cooked over a charcoal fire. Later, Tat showed movies and slides of Amateur Radio in Japan and of DXpeditions to JD/Orasawara.

Tat completed his counseling duties at Camp Napowan on 24 August and returned to Japan via Newington, CT and New York City.

At ARRL Headquarters, it was Tat's intention to present about 180 DX confirmations in person to Bob White, W1CW, so they could be checked on the spot at the DXCC certificate issued to Tat if everything was found to be in order.

That's the way to save postage. Hand carry your QSL's to League HQ!

### Ham hop

by Michael Friedrich, DJ5TH

When planning a 4 week trip to the USA, as a former member of the International Ham Hop Club, I had hoped to get some information from former members of this organization by QSO's, but nobody ever heard of IHHC.

In writing to the ARRL I received the addresses of George Pataki, WB2AQC, Gil Baker, W5QPX and Florence Majerus, W7QYA, and from the German Amateur Radio Club, the address of Fred Trode, DL8VQ/W2. Although contact by letters to these stations became the base for the trip, there was some lack of hosts in W6 and W7. By mailing more than a dozen letters to club stations, I got positive replies from Santa Barbara, Cal. and Salt Lake City and one from San Mateo ARC (3 replies!) Other contacts were made via QRL and by personal recommendations, one by erroneous QSL-information (I am not QSL-manager for FR7).

The trip started on 17 September with a map, received from James Hartley, W1DIS and a TR-22 for 2 meter contacts. Going from New York (WB2AQC with XYL Eva Patuki, WA2BAV) to Syracuse (Klaus Hoermann (DL2VQ/W2, Jim Kirkgasser, WA2ELA) who loaned me xtals for the TR-22) to Detroit, Marshalltown (Iowa), Salt Lake City (Russel Bateman, W7NFT, who shifted the loaned xtals to exact repeater QRG), Elko, Nev. (Earl Shobe, W7KOI), San Jose (Mas Takata, W6EJB, Wilmer Haas, W6DOM), Santa Barbara (Robert Dyruff, W6POU, Perry Esten, W6PNO, Los Angeles (Warren Baily, W6EGV), Flagstaff, Amarillo (Gill Baker, W5QPX), New Orleans (Robert Burt, W4SYL/5, Clifton Ryan, WA5WEY, Fred Kasten, W5NVU) via Washington, D. C. I returned to New York. Other stations as Florence Majerus, W7QYA and Bill Page, WB4LWX, offered hospitality but were out of route.

Also, you become very tired, going more than 8,000 miles by Greyhound. It was an amazing trip which turned out much better than hoped when planning it. Although there are dozens of moments on such a trip you will never forget; for instance eating rice in the Chinese way, visiting the world's largest copper mine and the Grand Canyon.

One moment should be mentioned to DXers. Two months after leaving the USA, I met Bill Page, W4SYL/5, on 75 when I just had a QSO with Forrest Gehrke, K2BT. I was a new country for my host in New Orleans on 75 while talking with him for 25 minutes with Q5 all the time. This QSO means something more to you instead of working a W5 from DL on 20. Even that doesn't occur every day.

Since my hosts had not too much troubles, this type of trip seems to be a nice opportunity to deepen contacts made by QSO opening the mind for customs and thinking of other people and gives you the feeling of personal care when visiting another country. In fact there was no moment, I would like to miss (except searching my bus ticket of the full trip for 10 minutes).

If you are same-minded, you are as welcome as my hosts and all those who cared for me.

### ZL

by Jesse Ball, W6BFO

I was very happy to read about Russ Garklick's (ZL3AAA) visit to America ("World-radio", Aug. 1974, page 8) and his delight in his reception. My XYL Jan and I know how he feels as we did the reverse by going to New Zealand 3 days after ZL3AAA landed here, we landed in Auckland.

We spent one month being royally treated. I traveled all the way to Queenstown on the South Island and stayed with ZL4AP (please turn to page 9)



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# continued from...

## ZL

(continued from page 8)

below the 43rd parallel on his sheep ranch. I made five formal talks to ham clubs in Rotorua, Wellington and Christchurch.

My wife lost her medical bracelet in Rotorua, Dave Clough, ZL1BNZ, found it and announced it on the 80 meter net. D. L. Vaughan, ZL2VA, and many others telephoned half the motels between there and Wellington to locate us, so it could be returned. I could tell you 20-30 calls of New Zealanders who took us to dinner, hosted us in their home, at the races, etc.

J. Baxendale, ZL1CD, would wake us each a. m. in the motel with another full day of sights and dinner at his house. I stayed on sheep ranches, etc., talking 'til the wee hours. It was great. We are having ZL's visit us beginning in late August, mid-October and next spring. We are trying to repay those fine people in a small way.

Our visit was June 22 to July 22 and I had my Atlas 180 on 40 with me. I used a 26 inch antenna with a door slam mount. My call was issued in 10 days, ZL1BFN.

## proposals

(continued from page 4)

license. Another way, instead of endorsement, would be that you could hold a license in the HF area, as well as one in the UHF-VHF area.

One of the objectives that we have had over and above to bring about this incentive license program also the VHF-UHF amateur is the eventual merging of the Extra and the Experimenter at the top by passing a minimum examination.

What are the objectives of a call sign plan? The first prefix letter in the call should indicate preferably what type of a station you have. Whether it is a primary station or a secondary station, a repeater station, a station in microwave domain, or in the MF-HF series. Normally, we can expect that anyone entering into amateur radio for the first time would be assigned what we call a 2 by 3 call. Two letters, the number would indicate the district, and then 3 letters for the suffix. As a part of the incentive licensing program the upgrading incentive we would visualize in the future the use of 1 by 1 calls, like W4A, 2 by 1 calls, like AA4A or WA4A, or 2 by 2 calls, AA4AA. This is an approach in applying incentive licensing system to call signs. Possible prefixes in the A block could run from AA to AL, Single letter N prefix and combination double N to NZ.

Keeping in mind what the purpose of amateur radio is, the value of your services to the U. S., the advancement of the art, the improvement you can make in advancing skills in communication and the technical phases of the art, what do you want in the future? Let us know what your thinking is."

(From "Bull-etin", San Antonio Radio Club)

## DXpeditioner

(continued from page 10)

(c) During the last Sprately Island expedition, one boat drifted off and it consumed many anxious hours before the DXpeditioner and his lost boat were found in the endless sea.

(d) This last expedition, to Kingman Reef, KP6KR, the courageous DXpeditioners, although faced with heavy fog and mist and impending storm, relentlessly searched for the obscure reef in the middle of nowhere. The conditions at sea were so bad and treacherous that they overshot the reef by 32 miles and were forced to grope their way back to the inlet of this reef. After operating for three days they were sudden-

ly forced to leave the reef due to the heavy wind and impending storm, to avoid a catastrophe. The whole amateur fraternity were glued to their sets, hoping that the gallant expeditioners were safe and were weathering the storm. They were hoping fervently that this expedition would not result in another sea tragedy.

It was a great relief when W6WX/mm announced that all were safe and they were proceeding home with a stop at Johnston Island. During all this tension, one "so-called amateur" inquired, "Are the logs for this expedition safe on board?" To that individual, the logs were more important than human lives. That, of course, was not shared by any other amateur.

Our hats off the a Dedicated Amateur -- the DXpeditioner!

## Navassa

(continued from page 1)

about 40 feet from a catilever catwalk. There is constant danger of the boat being broached by the incoming swell, being smashed against the cliff, being caught and crushed under the cliff or being engulfed by the receding backwash. The backwash has been described as being like "the turbulence under a waterfall or a rapid." All equipment used and/or inspected, are subject to unauthorized use and vandalism, and may be unsafe.

The above information is extracted from the "Assumption of Risk and Release of Liability" document that each visitor to the island must sign for the Coast Guard before permission for the visit is granted. In spite of these unusual dangers, hazardous travel conditions and high personal expenses, a group of six amateurs, most of whom are engineers employed by RCA, all members of the South Jersey Radio Association (SJRA) have signed up and are planning to go to Navassa Island.

## P29FH

(continued from page 16)

years ago. Now he has returned, feeling they have received the guidance and now the most important they can learn is to stand on their own. The school now has all native teachers where before they were Australians and Americans.

(for more on Fred, see *WORLDRADIO*, June 1971 and October 1972)

After lunch with Fred and Dorothy, we took them to the airport. While there we put a Swan 270 Cygnet on a flight to Los Angeles where Greg Sprehn, WA6MBW, was to take it to Honduras to assist in the effort there. Wilbur Bachman, W6BIP, was involved in letting them know of the rig which is made available to *WORLDRADIO* for such uses. (Thanks to PSA who flew the rig from Sacramento to Los Angeles at no charge.)

Another recent visitor to our offices was the sparkplug of SEANET, Ed Gribi, WB6IZF, 9V1QF, YB8AAP. (See *WORLDRADIO*, November 1973) Ed was in the U. S. for a short vacation from his job in Djakarta, Indonesia, and used the Worldradio Staff ARC station, WB6QHL, to say hello to his many friends on WCARS.

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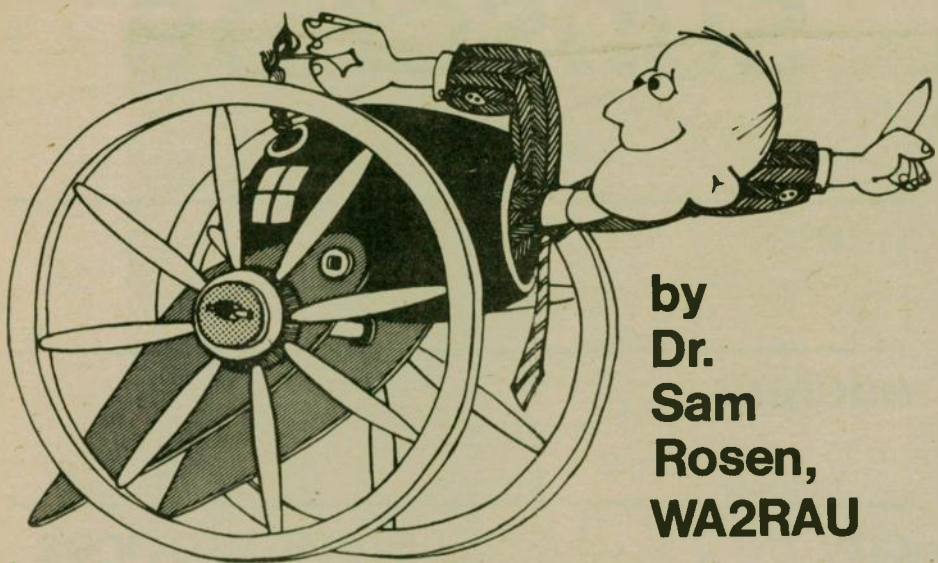
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by  
Dr.  
Sam  
Rosen,  
WA2RAU

## The Dxpeditioner ... A Dedicated Amateur

This article will deal with the role of the Dxpeditioner, the trials and tribulations faced by him in reaching isolated spots in the world, often almost invisible reefs only spotted above water for short periods of the day, the difficulties he encounters in reaching and recognizing these spots, the voluminous amount of red tape he must undergo before obtaining permission from the proper authorities for this operation. He is also faced with the problem of obtaining transportation for himself and the accompanying equipment, the hazards he encounters before reaching his destination, the sudden hurricane and typhoon type of storms at sea that threatens to engulf him in a watery grave, the problem of food and clothing, the financial responsibilities for the trip.

There is no great skill or effort involved in working a country that has inhabitants or radio operators for several months to several years; if you don't work him today, you'll work him tomorrow; if not tomorrow then next week or next month. But, a true expedition, due to tremendous costs involved, usually lasts only 3 to 5 days. The success or failure of this expedition depends on the number of contacts the DX operator is able to make in this short period.

I have travelled extensively to the four corners of the earth, usually on surgical and gynecological seminars and conferences, and, often on holidays, covering more than a half-million miles on those trips. I have been fortunate in being permitted to operate from the homes of the many amateurs that I had the pleasure of meeting. I have also operated several times during the ARRL and CQ World Contest from the world-renowned station of K2GL. I can therefore appreciate the terrific QRM and beehive of activity that erupts when a rare DX station appears on a frequency.

Every Dxpeditioner deserves our full praise and commendation. In practically every Dxpedition you will find amateurs heaving deserved praise on the operators of the expedition, on the other hand, you will find detractors usually because they were not successful in obtaining the desired contact.

It is the DX operator's privilege as to which method he utilizes to operate on this expedition; many methods have been used, some successfully, some not.

(1) Previous contact is made with a small group of DXers by the operator, and only this group is worked from a prepared list. This method I consider absolutely unfair. Fortunately this is rare.

(2) When Harvey operated from Chagos, he advised you to call anywhere from 14.260 to

14.280, and announced that he would contact you on your own frequency. The QRM often blotted out his report.

(3) The List Method - This method is approved by some and disapproved by many die-hard DXers. The MC will prepare a list - relay it to the DX operator - then on appointed time will instruct the DXer to call. He will be recognized by the DX operator given a report and the DXer will then respond, "Thank you for 5-9 report you gave me, 73, good luck." The abuse enters the picture when the DXer does not hear the operator come back to him and asks the MC, "Did he hear me, did he come back to me, what is my report?"

Although the rules of the DX Committee do not demand any report to count for a new country, I firmly believe that a report should be obtained on both sides to be considered a full contact.

(4) Transceiving - Operator announces he will receive and transmit on 14.210 - This is almost impossible. Invariably, while the Dxpeditioner is giving his report on 14.210, 5,000 amateurs are calling him on that same frequency while he is still transmitting. The DXer is absolutely unable to hear his call; he does not know - did he work that station or did he not - and invariably the unsuccessful DXer will start a conversation on that frequency, deriding the mode of operation, criticizing everything that is being done, initiating a series of name-calling, bell ringing, strong carriers, whistles. Consequently it consumes 10 to 20 minutes for one contact.

(5) Split Frequency - The DX operator transmitting, let us say, at 14.195, announcing that he is listening 14.210 to 14.220, and as the QRM picks up, he asks them to spread out another 5 or 10 kHz's. Usually this is a successful mode of operation. However, he must announce at frequent intervals the listening frequency. Failure to do so will give birth to a "policeman" who will come on the DX operator's frequency and start a conversation with another amateur, inquiring the listening frequency and then often engaging in a disturbing QSO with him and others on that same frequency.

(6) Covering the Entire Band DX Operation - The DX operator transmits on 14.300. He then proceeds to play Russian Roulette. This, to me, is a discouraging and depressing type of operation. Besides incurring the enmity of all the amateurs not DX-minded, the ensuing barrage of noise will wipe out every QSO for 100 kHz, will wipe out every net, including emergency nets, and totally befuddle the avid and anxious DXer. How can he tailgate when the operator flips the dial almost

100 kHz after every contact he makes. Picking one frequency in that enormous spread and staying on it is no solution; permutation and combination will tell you that the chance of success in working the DX operator in that fashion is minimal - it may take hours or never.

(7) Operating 14.195 and listening on 14.210 - Well, that is perfectly ok if you have an excellent antenna set-up, running full power, have a good location and are one of the very strong stations. But what happens to the amateur who only has a dipole for his antenna and fanning barefoot? Only by accident will he be recognized.

(8) Working by Call Areas - This method is very good if properly utilized. This demands a good preparation and knowledge of propagation conditions by the Dxpeditioner. If, for example, you are operating from a spot in the Pacific or other Westerly points, it is common sense that the West Coast can be heard with terrific signals at most hours of the day or night, the obvious method would be to work the other call areas and then work the W6's and KH6's when the other areas disappear from the band. Usually the East Coast appears and disappears first, followed by the Midwest and when they begin to fade, the West Coast dominates the field from then on. The operator should announce that he is listening for a certain call area and must not deviate to answer any call from any other call area during that period - doing so will invariably open the field for anyone else to call from other than the call area he originally asked for - he has himself to blame. He must announce his intentions frequently, as someone just tuning up and hearing a myriad of voices will start to call out of turn. Another thing, if he calls by call area, he should not stay on one call area for half an hour or more - by the time he reaches the next call area, he may find that he has lost all propagation to the other areas - I believe that the fair method would be for say - 5 minutes from each call area - and go around and around to the 1st, 2nd, 3rd area, 4th, 5th, 6th, 7th, 8th, 9th, 0 and go back to 1st again. However, questions have been raised as to why start with the first call area - why not start with the ninth or tenth. That again is the decision of the operator. He is trying to be fair and to work as many amateurs as he could. These are some of the methods used in Dxpeditions. You must decide which you like best!

The Dxpeditioner, in his efforts to bring to all of us a new DX country in some far corner of the earth, often faces hardships, danger and even serious illness. There are several instances that are indelibly etched on my mind:

(a) Approximately two years ago, when I had the pleasure of spending some time with Robby, 5Z4ERR, at his home in Nairobi, Kenya, he related to me the admiration that he had for Gus Browning, W4BPD, both as an expeditioner and as a man. Gus appeared at his home during one of his expeditions in the Indian Ocean in 1970. Gus was seriously ill. He was suffering from a severe form of intestinal virus and could barely stand up. His feverish and gaunt appearance was pathetic. He could not retain any food and Robby spoon-fed him a teaspoon of milk and ice-cream at a time - this too he had difficulty in retaining. Robby refused to let him out of bed until he improved. Gus was suffering from complete exhaustion bordering on total collapse. Despite all this, as soon as Gus was able to navigate, he was off to another expedition, instead of returning home or to a hospital. At this point, one often wonders, was all this deprivation and sacrifice necessary just to give some amateurs a new country? Gus almost died on that trip, but he felt he must complete what he started to do.

(b) Chuck, K7LMU, perished in a terrific storm at sea while travelling to the Pacific from one remote island to another. He was so anxious to reach his next DX destination that he braved the storm at sea, and his boat sank with the loss of several other lives.

(please turn to page 9)

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# Heros of Honduras

by Carl Sletten, WYLV

The two Honduras items on this page arrived at WORLDRADIO on 1 Oct.

I had a sked on Wednesday night with Dr. Jose Interiano, HR3FJI, in La Ceiba at 2300Z on 14.260 MHz but neither he nor Elene showed up. By accident I tuned across 14.320 and heard some reports about Hurricane Fiji which explained why La Ceiba might not be on the air.

Not too alarmed - it was the second big storm this year following about the same track. I waited until Thursday (the 19th) to check into the Intercontinental Net on 14.313 MHz. Some news in the press about wide spread destruction in Honduras caused me to fear for friends down there.

I was able to locate Arturo Alvarado Wood, HR3AAW in La Ceiba and he gave a factual on-the-spot report of his area - 30% of buildings on Utila were down, no known deaths on Islands - Roatan, Utila or Juana-ja. Some deaths and bad flooding in La-Ceiba area. Yes, the Interianos were well and Jose was helping with medical problems and communications. Art (HR3AAW) had been up for 40 hours without sleep; his was the only communication out of that stricken area. He did a terrific job on the radio - mostly for within country traffic on 40 meters. His cubical quad survived the 100+ knot winds; most all other antennas were flattened. He had emergency power.

He reported the airport was half-covered by mud, but by the next day he was piloting relief planes back and forth to Tampa. For a man who had been in the hospital only a month before, he was performing like a giant nine feet tall!! I'll come back to him later; there is more.

But the scene in San Pedro Sula was even more somber and from my observations during that fateful week two individuals rose heroically to the crises. These two amateurs are Ruth Paz, HR2RP, and Gus Kuether, KØYVR/HR2.

Gus mobilized, with the Honduran military, in-country communications in the stricken area. Ruth handled much of the out-of-country traffic night after night with a splendid signal, lots of patience and lots of businesslike finesse.

Other operators got on too, Scotty Michael-son, HR2ASM; Jack Gaffney, HR2JAG; Joe, HR3EHA; Doris, HR2JEC, and Phil Pick, HR2FP - but Ruth seemed to be everywhere, 14.320 (Hurricane net) 14.280, IMRA and 14.313. Facts about deaths in Chaloma and other flooded districts made it a pretty grim vigil. Lots of name inquiries - "did my brother survive?" It was impossible to answer such inquiries but in spite of that, phone patches were made giv-

ing enormous relief to worried people. Gus Kuether is also basketball coach so he had his boys trying, on foot, as gasoline and telephones were mostly non-existent, to track down missing persons and install mobile radio gear. Gus is also a minister and sure enough many of the churches around San Pedro elected him Coordinator of the relief organization to help the needy. This was the big job.

True, approximately 10,000 people died, but for the living, poverty had become starvation. The whole economy of the nation depended on the fruit and farms of the rich coastal plane. Can help come in large enough volume to support these people until new crops can be harvested? Your help through your church or CARE is certainly vital.

Several other interesting things happened in the communications picture. The U.S. Air Force and Army rallied to the aid of Honduras with medics, helicopters, and supplies. A command post appeared in Tegucigalpa and 14.320 was used to get clearance to land planes, request repairs of choppers, and handle lots of traffic between Panama, U.S. and parts of Honduras. Amateurs and military operators worked together in those hectic hours with ambassadors and officials trying to direct relief.

Out-of-country patching didn't reach too high a volume until several days after the holocaust, based on my impressions operating between 22-0100Z on 20 meters each night. One patch impressed me however - my acquaintance, Hermann Bontrager, from La Ceiba, got on HR3AAW on 25 Sept. and really gave me a lesson in how one should help his neighbors. Talking to his supporters in Lancaster, PA, he asked for trained people by name who knew the language and people in the area. The folks in Pennsylvania were willing to go the next day for 4-8 weeks to do the jobs.

Supplies were defined and boat loads of the right things immediately dispatched. The night before Art's (HR3AAW) radio got used by his 15-year old boy DiDi while Dad was in Tampa. He handled the rig like a pro and patched me into the Interiano family for news about many friends and their relatives.

Many other amateurs, both in U.S. and in Honduras, deserve much credit for easing the grief in the tragedy of Hurricane Fiji.

My information is based only on my evenings on 20 meters. I felt proud of our fraternity and the unstinted service these men and women performed.

## Amateurs-vital Honduras link

by George McEvoy, Staff Writer

The voices came through clear but metallic, muffled slightly by the echoes of great distance.

"I've got 1,500 pounds of food and a helicopter. We're in a valley near San Pedro Sula. Rather isolated. Need a pilot who knows the country."

These are not the mellifluous tones of a trained radio announcer. They are the strained, anxious voices of rescue workers, deep in hurricane-ravaged Honduras.

"I've got a pilot for you" another voice says. "He flies for a fruit company and knows the land. He'll fly right in"

Ellie Horner sits at her amateur radio layout in her Fort Lauderdale Home at 2616 Barcelona Drive and smiles with satisfaction. Once more, her radio frequency has been used to facilitate getting aid to the stricken people of Honduras.

Mrs. Horner is one of a large group of Broward County amateur radio operators

who have turned their sets into rescue bands since Hurricane Fifi struck Central America.

Actually, she was broadcasting warnings to Honduras on 16 Sept. when Fifi was still just a growing tropical storm. She has a teletype machine in her radio room, connected directly with the Hurricane Center in Miami. As soon as it began clack-clacking out it's warnings, she relayed them to amateurs in Honduras.

"I hope we saved some lives by warning people in time," Mrs. Horner said. "Maybe some of them could get to higher ground before the flood waters hit."

Right now, her job consists of relaying messages and - mainly - in keeping a frequency open for the use of rescue workers on the ground and in planes. They can broadcast to each other or to headquarters in the U.S. or elsewhere over her beam.

"I'm taking turns keeping the frequency open with a man in Bryn Mawr, Pa.," she said. "He starts out early in the morning, and when his voice gives out, I take over."

In recent years many new governments have merged replacing old colonial powers and there now exists a situation in which many delegates to the frequency re-allocation meeting will have no sympathy for Amateur Radio since their countries have few amateurs, but much need for new frequencies for systems other than Amateur Radio.

These small nations have a greater voice than their size and international influence would indicate because of their number. Two countries the size of Rhode Island can outvote one nation as large as the United States.

Many of you will say that we do not need to justify our existence. After all we have performed many public services and have contributed thousands of trained and experienced radio operators in time of war and peace alike. But what have you done lately?

So you haven't jammed WSCARS and you haven't pushed the mike button too many times lately to see if the repeater is on and

But even more importantly, Ellie Horner, the man in Bryn Mawr and all the other amateur radio operators in the country are providing just about the only link Honduras has now with the outside world.

"Almost all the phone lines are down," Mrs. Hornor said. "Radio is the only voice the people have there".

Several amateurs are operating in Honduras itself, although most of the broadcasting is by official and relief agencies. It is these agencies that Mrs. Horner is helping.

"This is K4RHL," she said into the microphone as some amateur got on her frequency by mistake. "We are handling official and emergency traffic only on this frequency."

The errant one said "sorry" and got off.

Since Fifi struck Honduras, Mrs. Horner has been plagued with phone calls from people asking her to contact friends in the storm-wracked republic.

(Ft. Lauderdale, Florida News)



Ellie Horner, K4RHL (Photo by Lou Toman)

(When we put Ellie's picture on this page, at 2128Z we could hear her handling traffic with HR1JBS. On 14.320 MHz it was a message regarding a shipment of medicine.

## Tomorrow

by Berge Bulbulian, WB6OSH

Most people assume that because the sun rises in the east every morning that it will continue to do so every morning into the infinite future. Wrong! for two reasons - the sun only seems to rise, it is the revolving of the earth which gives that impression, and there is evidence that the sun is slowly burning out.

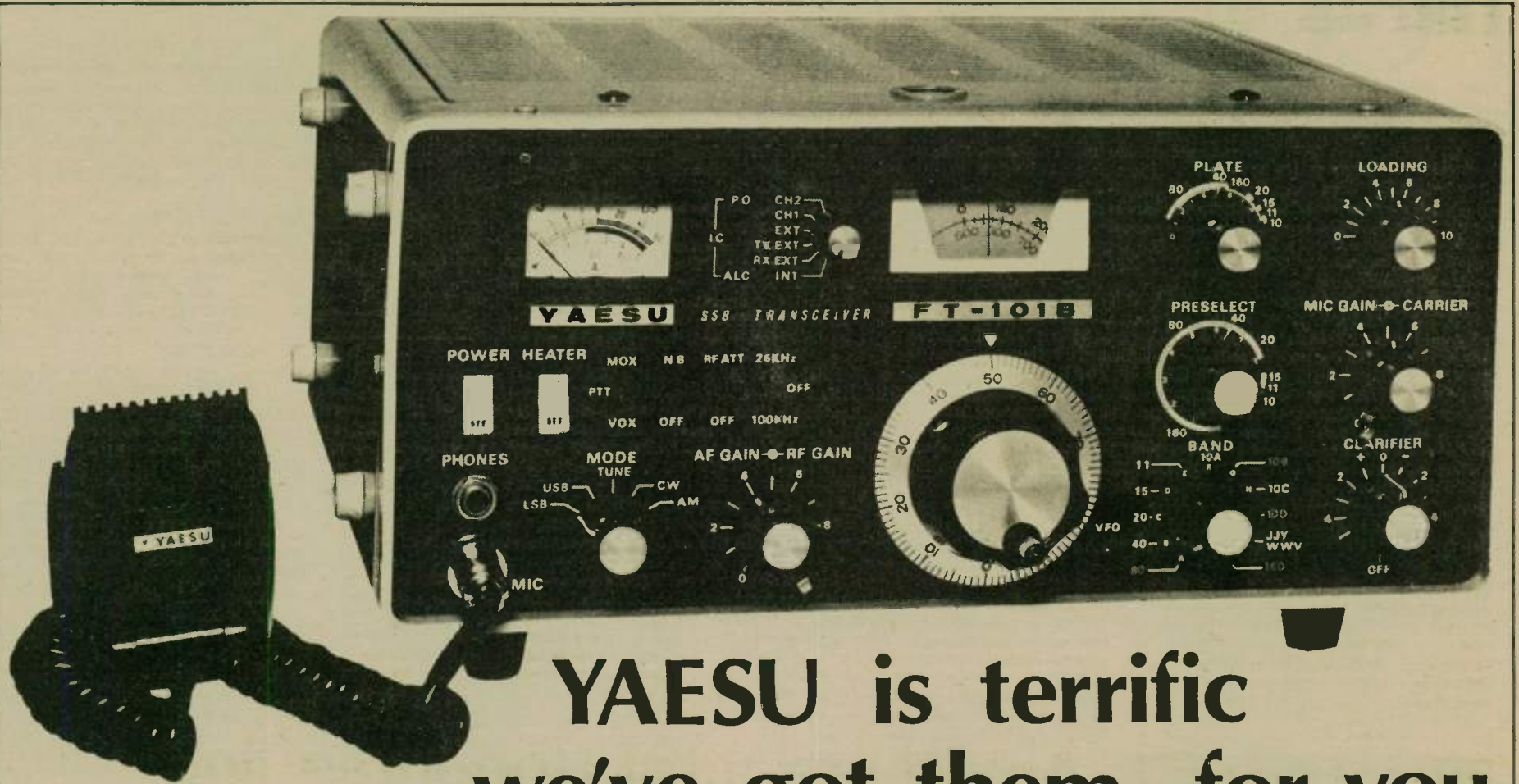
Of course, the day the sun does not "rise" is some time off, like billions of years so it seems that humankind (that is better than mankind since about half of humankind is womankind) has a few social problems more pressing than physical problems, such as how long the sun will continue to serve as a source of energy so vital to life.

Likewise, many amateurs assume that because there has been Amateur Radio since the very beginning of radio that there al-

ways will be. After all "I have the right to operate". Wrong! We have the privilege to operate and there is a difference between rights and privileges. A right is that which is due to anyone by law, tradition or nature. A privilege is a benefit granted to an individual or class.

We are granted the privilege of being amateur radio operators by a duly constituted agency of the United States government which has the power not only to grant that privilege, but to limit it and take it away. In addition, that agency is obligated by international treaties to abide by rules made by the International Telecommunication Union.

There is every indication that there will be an international meeting in the near future for the purpose of re-evaluating frequency allocations. In the past, countries (such as the United States and others) which had an advanced communications system and an awareness of the contribution of Amateur Radio to that system had a strong voice and Amateur Radio fared reasonably well.

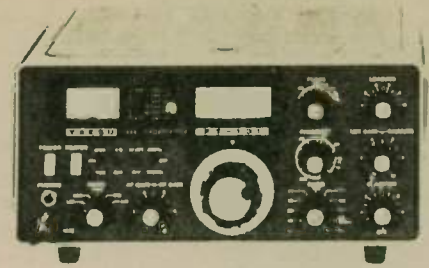


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# FCC

## FCC COMMISSIONERS

**Richard E. Wiley, Chairman --Republican.** Born Peoria, Ill., July 20, 1934. Nominated to Commission November 30, 1971, by President Nixon. Sworn in on recess appointment, January 5, 1972. Became Chairman March 8, 1974. Appointed FCC General Counsel September 29, 1970. Partner in Chicago law firm of Burditt, Calkins and Wiley, 1969-1970. Assistant general counsel, Bell & Howell Company, Chicago, 1968-1969. Faculty member, John Marshall Law School, Chicago, 1963-1970. Chairman, Young Lawyers Section, American Bar Association, 1969. Member, ABA House of Delegates, Commission on Campus Government and Student Dissent. Founding editor-in-chief, "Law Notes," legal quarterly. National Officer, Federal Bar Association.

**Robert E. Lee--Republican.** Born Chicago, Ill., March 31, 1912. Appointed Commissioner by President Eisenhower in 1953. Reappointed by President Eisenhower in 1960 and by President Johnson in 1967, and President Nixon in 1974. Was auditor before joining Federal Bureau of Investigation as Special Agent in 1938. Served as Administrative Assistant to J. Edgar Hoover at FBI, and as Director of Surveys and Investigations for Appropriations Committee of House of Representatives.

**Charlotte T. Reid--Republican.** Born Kankakee, Ill., September 27, 1913. Nominated to Commission July 21, 1971 by President Nixon. Sworn in October 8, 1971. Member of Congress from 15th C. D., Ill., 1962-1971. Member Interior and Insular Affairs, Public Works, Appropriations, Official Conduct Committees during five terms in Congress. Congressional Member, Kennedy Center for Performing Arts, 1963-1966. Professional singer with National Broadcasting Company, 1936-1939.

**Benjamin L. Hooks--Democrat.** Born Memphis, Tenn., January 31, 1925. Nominated to Commission by President Nixon, confirmed by Senate May 30, 1972, sworn in July 5, 1972. Practiced law in Memphis, 1949-1965. Assistant Memphis Public Defender, 1961-1964. Shelby County (Memphis) Criminal Court Judge, 1965-1968. Ordained Baptist Minister 1956. Named pastor, Middle Baptist Church, Memphis, 1956, Greater New Mt. Moriah Baptist Church, Detroit, Mich., 1964. Co-founder Mutual Federal Savings & Loan Association of Memphis, Vice-President 1955-1969. Producer, host, panelist on public affairs television programs on Memphis stations.

**James H. Quello--Democrat,** born Laurium Mich., April 21, 1914. Nominated to Commission by President Nixon on September 20, 1973, confirmed by Senate on April 23, 1974, sworn in April 30, 1974. Rose from position of promotion manager radio station WJR, Detroit, Mich., 1947 to Vice President, General Manager, 1960; retired as Vice President Capital Cities Broadcasting Corporation in 1972. A Civic activist, he was a Detroit Housing and Urban Renewal Commissioner 1951-1973, and trustee Michigan Veterans Trust Fund 1951-1974. He was also member of Governor's Special Commission on Urban problems; Governor's Special Study Committee on Legislative Compensation; Assistant National Public Relations Chairman V. F. W.; TV-Radio Chairman United Foundation; Executive Board member of Boy Scouts of America; and Board member American Negro Emancipation Centennial.

**Glenn O. Robinson--Democrat,** Born Salt Lake City, Utah, June 6, 1936. Nominated to Commission May 17, 1974, by President Nixon. Sworn in July 10, 1974. On faculty of University of Minnesota Law School, 1967-74. Taught administrative law, torts, regulated industries and public land management. Has written and lectured extensively on communications law. Member of Washington, D. C. law

firm of Covington and Burling 1961-62, 1964-67, working in communications law and general practice.

**Abbott M. Washburn--Republican.** Born Duluth, Minn., March 1, 1915. Nominated to Commission May 17, 1974, by President Nixon. Sworn in July 10, 1974. Director, Department of Public Services, General Mills, Inc., in 1940's. Executive vice chairman of Crusade for Freedom (Radio Free Europe), 1950-51. Eisenhower Presidential campaign staff, 1952. Deputy Director, U. S. Information Agency, 1953-1961. President of international public affairs counselling firm of Washburn, Stringer Associates, Inc., 1962-68. In 1969 appointed deputy chairman of U. S. delegation to INTELSAT Conference. Chairman of INTELSAT negotiation conference, with personal rank of Ambassador, 1970-1971. Special consultant to the director, the White House Office of Telecommunications Policy, 1971-74.

## Walker

by Eunice G. Bernon, K8ONA

Although most U. S. radio amateurs know that 1974 marks the 40th anniversary of the Federal Communications Commission, few, if any, are aware that a timely salute is due the Chief of the FCC's Amateur Division.

This is the 50th year on the air for A. Prose Walker, W4BW. His title is Chief, Amateur and Citizens Division, FCC, and he directs the regulatory and licensing functions of more than one million licensees.

Walker maintains a cordial open-door policy. He opened this interview with, "My mother always said I 'inherited' my interest in radio because while she was carrying me, she lived near the railroad station and could hear the telegraph sounder most of the time.

"My earliest recollection of radio began at 5, when I discovered that a ham operator lived across the street," he said. "I knew he talked to other people, but in my childish concept of wireless communication, all I could visualize was a piece of paper with a message on it fluttering through the air and being caught on his big antenna.

"From that point on, wireless, or radio, was a burning subject for me, and has remained so ever since."

Walker was graduated from Denison University in Granville, where he majored in physics and education. He did graduate work in physics at Ohio State University.

When Walker was licensed by the Department of Commerce in 1924, the prefix to his call letters (8AVQ) was "nu" which indicated "North America, United States" to distant operators.

Since then, he has been licensed in all but two U. S. call districts, and he has operated, in his travels, from many countries around the world.

"I'm really not much of a joiner," Walker said, "but I'm a life member of the ARRL and QCWA, and am an ambassador of the International Amateur Radio Club headquartered at the International Telecommunications Union in Geneva. I've also qualified for DXCC, WAZ and WAS certificates.

Walker operates Collins S-line equipment on the 10, 15, 20, 40 and 80-meter bands; his enviable list of antennas may be referred to as an "antenna farm".

Although he occasionally operates on 6 and 2 meters, Walker prefers the DX bands, where he keeps schedules with friends around the world.

Walker has been a professor of science and mathematics, was in FCC service during World War II, was chief of TV allocations with the U. S. Broadcast Bureau, has been U. S. Delegate to 20 international

telecommunications conferences, and has worked as manager of engineering with the National Association of Broadcasters.

He has written many articles for technical journals, and has lectured widely throughout the world.

Walker was elected a Fellow in the Institute of Electrical and Electronics Engineers for his "contribution to international standards in the utilization of the radio spectrum."

His concern even now is about the next World Administrative Radio Conference in 1979.

"We in the United States have a maximum of about four years to impress upon other countries the vital importance of the amateur radio service", he said.

"Allocating the frequencies in the radio spectrum through the WARC voting structure means that U. S. efforts would be thwarted by votes of countries that give a lower priority to amateur radio." he explained.

"Amateur radio organizations, and individuals, should make every effort to foster support of Amateur Radio at the conference in 1979", he urged.

## Box 88 - Moscow

(continued from page 2)

ence books (this figure not including magazines) and about 12,000 technical articles, a reading room, a lecture theatre about the size of a small cinema, a small lecture room, a laboratory and workshop and, of course a QSL bureau.

The QSL bureau has a full time staff of four women who handle annually about 2-1/2 million cards, including about 8,000 to and from New Zealand. While visiting the bureau I picked out cards from Soviet amateurs destined for Auckland hams I knew and was able to deliver them in person upon my return to New Zealand.

There are 46,000 licensed amateur operators in the Soviet Union and 4,500 clubs with over 17,000 members. Power ratings allowed for the three classes of license are 200W for Class 2 and 10W for Class 3. Unfortunately, again due to language problems further details of these classes were not obtained.

The Central Club organizes contests, issues contest award certificates and publishes a monthly magazine, "Radio" which has a circulation of one million copies. The contest to follow my visit was for operation on 144 MHz and 432 MHz, there being 16 stations with four operators per station.

A Club headquarters station is situated 35km (about 21 miles) away and has a 1kw transmitter on each of the five hf bands and a beacon on 144.5 MHz.

I was told I was the first ZL to visit there and came away with sundry souvenirs including club badges, blank award certificates and a QSL card from UA3KAA, Central Radio Club, Moscow, USSR, with a notation on the back which reads, when translated, "To ZL1HL from the Central Radio Club of USSR to commemorate the meeting - I Demianov, UW3ID, Chief Executive".

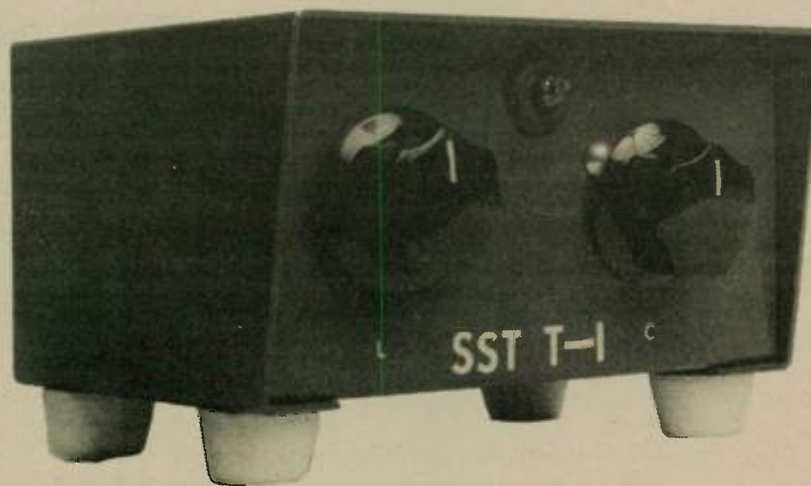
Ham radio is indeed an excellent introduction to overseas people for those fortunate enough to be able to travel far afield.

(From "Break-In", Journal of the NZART)

## Dear Friends:

We'd like to thank those who wrote in about how much they enjoyed last month's issue. We were just about bowled over by the deluge. Such feedback is really an inspiration to your staff here. And a hearty welcome, and thanks, to the several new lifetime subscribers. We've got some very informative and thought-provoking articles lined up for next month's issue. 73, Armond, WB6AUH.

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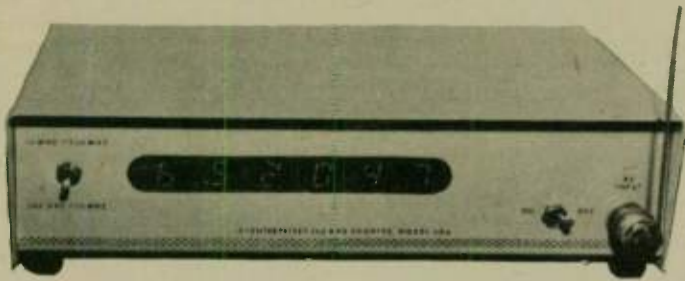


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A signal is applied to the input circuit and pre-scaler where it is divided by ten and fed to the amplifier, amplified and applied to the input of the schmitt-trigger, which shapes the signal and feeds it to the control gate; when the control gate is opened for one second the signal is applied to a chain of decade counters. The BCD output from the counters is decoded and displayed on the six seven-segment light-emitting diode display.

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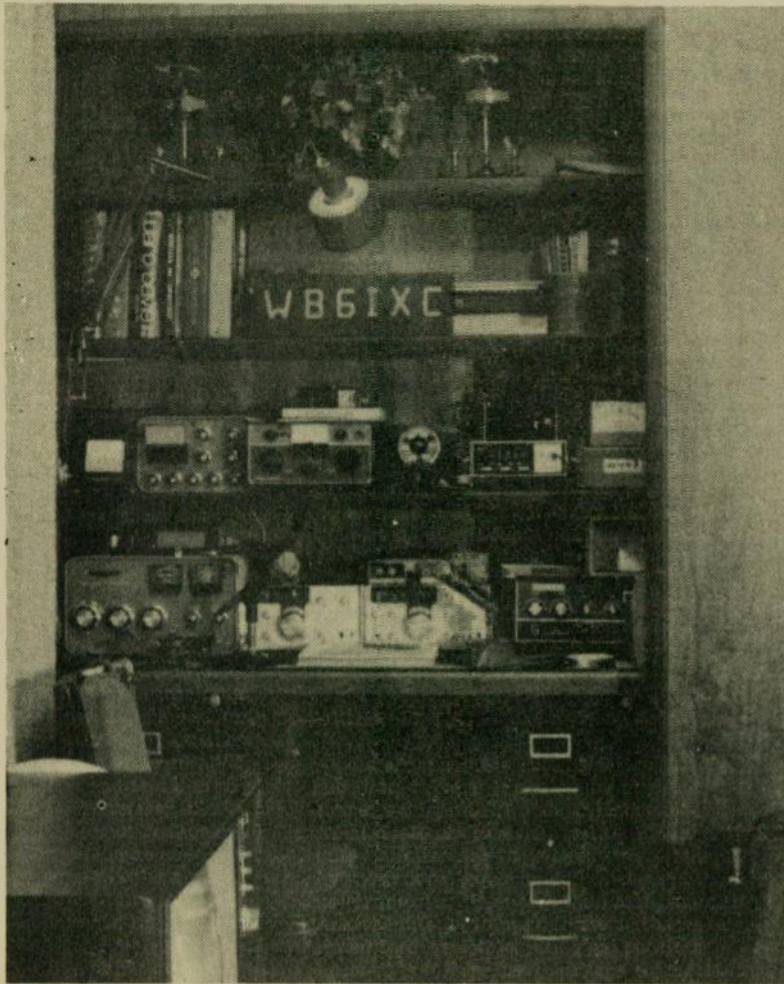
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# station appearance



Continuing our feature on "station appearance", this month we highlight the stations of Dennis Scannell, WB6IXC, (top) and Wes Loudon, WB6UJO, (below). We would like to continue to display photos of stations that reflect well a positive "image" of Amateur Radio.



## Fred, P29FH, visits Worldradio

Fred at WB6QHL  
Worldradio Staff  
ARC station.

On Wednesday, 26 September 1974, Fred Hargesheimer, WØEBG, (well known as VK9FH, and lately as P29FH) and his wife, Dorothy, visited The Worldradio News.

They were returning to their Minnesota home on their way back from New Guinea. Fred is probably one of the world's best known amateur radio operators. For the past several years he has been operating from the village of Ewasse on the island of New Britain.

His location was the Airman's Memorial School. Fred was responsible for the school being built (the area's first) as a thank you to the natives who saved the lives of many American and Australian fliers.

Fred, a P-38 pilot, was shot down in June, 1943. He wandered alone in the jungle for 30 days before being found by the natives. They nursed him back to health and shielded him from enemy forces for many months.

In November, 1943, he joined in with a group of the legendary "Coastwatchers". A licensed amateur since 1934, he was on radio watch when the message that fliers would be evacuated by submarine. That was in February, 1944. When leaving he promised the natives that someday he would thank them properly for what they had done.

His way of thanking them was to be instrumental in giving them what they needed most, education. In 1963 he started building, with his own hands, their first school. Periodically, he would return to see the progress.

In May of 1969 he returned to dedicate the village's first medical clinic. During that trip he was accompanied by Worldradio editor Armond Noble, WB6AUH, who operated as VK9AM. Armond was there to make a documentary motion picture about the school.

Fred returned to the school full-time three (Please turn to page 9)

## CW FILTER



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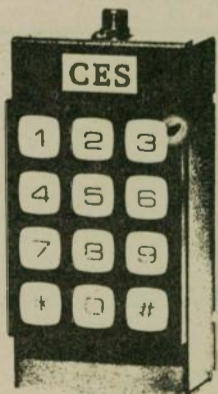
BANDWIDTH: 80 Hz, 110 Hz, 180 Hz (Switch selectable)  
SKIRT REJECTION: At least 60 db down 1 octave from center frequency for 80 Hz bandwidth  
CENTER FREQUENCY: 750 Hz  
INSERTION LOSS: None. Typical gain 1.2 at 180 Hz BW, 1.5 at 110 Hz BW, 2.4 at 80 Hz BW  
INDIVIDUAL STAGE Q: 4 (minimizes ringing)  
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HOLIDAY PACKAGE <b>BUY #1</b>	HOLIDAY PACKAGE <b>BUY #2</b>	HOLIDAY PACKAGE <b>BUY #3</b>	HOLIDAY PACKAGE <b>BUY #4</b>	MOBILER PACKAGE <b>BUY #5</b>
<b>"\$59.60 OFF"</b>	<b>"SAVE \$67.85"</b>	<b>"FREE MICROPHONE"</b>	<b>"BEST BUY PER WATT"</b>	<b>"160 WATT MONOBANDER"</b>
Swan 300B Cygnet de novo transceiver PLUS TD-80/40 trap-dipole antenna for 80 and 40 meters. This regular \$595.85 list value is yours during this special season at a low cost of only \$536.25 complete.	Swan 300B Cygnet de novo transceiver PLUS 14-A 12V DC converter PLUS 404 hand-held microphone PLUS 45 mobile 5-band antenna. Save \$67.85 off the regular \$679.80 list value. Total package price is just \$611.95 if you buy now.	Swan 300B cygnet de novo transceiver PLUS 444 desk microphone PLUS TB-3HA heavy-duty tri-band beam antenna for 10, 15 and 20 meters. Separately, a regular \$715.85 list value. This grouping offered at a net \$679.95 price.	Swan 300B Cygnet de novo transceiver PLUS 444 desk microphone PLUS TB-3HA beam antenna PLUS 1200X linear amplifier — a 1200 watt P.E.P. home station. \$1015.80 regular list value, now just 80¢ per watt at a \$964.95 sale price.	Select a 40 or 80 meter package! Swan MB-40A transceiver PLUS 404 hand-held microphone PLUS 40 meter model 35 mobile antenna . . . OR . . . Swan MB-80A transceiver PLUS 404 microphone PLUS 80 meter model 35 mobile antenna. An up to \$407.75 list value at only \$385.95 for your choice of frequency band.

**ACCESSORIES AVAILABLE AT REGULAR LIST PRICE:**

Sorry, no substitutions/deletions to special packages. The reduced prices shown are restricted to combinations stated for a limited time only. This offer expires December 25, 1974. Residents of California, please include sales tax when ordering direct from the factory.

You may order through any participating Swan dealer or, if you prefer, complete and mail the coupon with your down payment (certified check or money order) to:

**SWAN**  
ELECTRONICS  
A subsidiary of Cubic Corporation  
305 Airport Road  
Oceanside, CA 92054  
Phone (714) 757-7525

14-A DC Converter for 300B mobile use ..... \$ 49.95	FP-1 Telephone Patch..... \$ 54.95	MTK Mobile Custom Mounting Kit . \$ 9.95
508 External VFO for extra 300B control ..... \$189.95	SS-16B Super-selective I.F. Filter Kit ..... \$ 89.95	MARK II 2000 watt P.E.P. Linear Amplifier ..... \$749.95
VX-2 Plug-in VOX unit for 300B ... \$ 44.95	GMTK Mobile Gimbal Mounting Kit ..... \$ 5.20	MBCW CW Sidetone Monitor for Monobander ..... \$ 19.95

Gentlemen:

Please ship, best way — collect, the items checked to:

NAME: \_\_\_\_\_ AMATEUR CALL: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ PHONE: \_\_\_\_\_  
CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

- |  |  |
|--|--|
| <input type="checkbox"/> PACKAGE BUY #1 — \$536.25   | <input type="checkbox"/> PACKAGE BUY #2 — \$611.95       |
| <input type="checkbox"/> PACKAGE BUY #3 — \$679.95   | <input type="checkbox"/> PACKAGE BUY #4 — \$964.95       |
| <input type="checkbox"/> PACKAGE BUY #5 — (Check One: <input type="checkbox"/> MB-40A or <input type="checkbox"/> MB-80A) — \$385.95 |  |
| <input type="checkbox"/> 300B — \$519.95   | <input type="checkbox"/> 300B with SS-16B — \$589.95     |
| <input type="checkbox"/> 14-A DC Converter — \$49.95   | <input type="checkbox"/> 508 VFO — \$189.95              |
| <input type="checkbox"/> VX-2 VOX — \$44.95  | <input type="checkbox"/> FP-1 Phone Patch — \$54.95      |
| <input type="checkbox"/> Mark II Linear — \$749.95   | <input type="checkbox"/> MBCW Sidetone Monitor — \$19.95 |

TOTAL AMT. OF ORDER \$ \_\_\_\_\_ AMT. ENCLOSED \$ \_\_\_\_\_  
 Full Payment Enclosed.  20% down payment enclosed, ship C.O.D.  
 20% down payment enclosed, charge remainder to BankAmericard  
 # \_\_\_\_\_ expires \_\_\_\_\_  20% down payment enclosed, charge remainder to Mastercharge # \_\_\_\_\_  
 expires \_\_\_\_\_ 4 digit Interbank # \_\_\_\_\_  10% down payment enclosed, charge remainder to Swan Account # \_\_\_\_\_  
 and defer first monthly payment on this charge until January 1975.

(Signature)

(Date)

# 4U1ITU

by Herbert Lipson, W8FBH

One of the highlights of our trip to Switzerland this summer was a very enjoyable visit to Amateur Radio Station 4U1ITU of the International Telecommunications Union. We had taken the advice of Arch Doty, K8CFU, and write to them about a month before we were scheduled to arrive in Geneva, and we certainly received the red carpet treatment.

4U1ITU is owned and operated by the International Amateur Radio Club, whose members consist of various employees of the ITU. We were personally received by Renato Brazza, I1BAG, one of the engineers at ITU. We went up to the top floor of the building and there, in a separate office room with a beautiful view, was a very well laid out ham shack.

There are three operating positions. One is a VHF layout with Hallicrafter equipment, used for satellite experiments. Another is a Yaesu-equipped layout, used for most day-to-day operations. A third is a Collins S-line arrangement, which was temporarily QRT because of a defective power transformer. The antenna farm consisted of several beams and a few dipoles on the roof of the building. We were invited to operate the station, but due to a tight schedule we were forced to decline.

As with many other clubs, this one is suffering the malady of dwindling membership and funds. The number of amateurs employed at the ITU is decreasing, and, as Renato explained, because of more liberal licensing procedure, most newly arrived amateurs who formerly used the club station for their contacts are now able to obtain a Swiss operating permit quickly and would rather set up their own stations at their living quarters.

As a result of reduced funds, most of the IARC publications have been suspended. QSL's are one of the big expenses, since they QSL 100% and personally take each group of cards to the Post Office to pay the various fees to different parts of the world. They are restricted in the type and amount of donations they may receive because of the amateur nature of the station and possible conflict with the forthcoming frequency allocation conferences.

Each year, on May 17, they have organized a world-wide ITU amateur radio day. Amateur groups all over the world are requested to arrange for special ITU calls and give all active hams an opportunity to work an ITU station. This 24-hour period is good publicity for the International Amateur Radio Club and amateur radio in general, since many VIP's are invited to the station to send messages via amateur radio. In 1974, the Secretary General of the U. N. was an honored guest and expressed his pleasure at the achievements of amateurs of the world.

We were told that one of the activities that pleased many of the U. N. members is the establishment of repeater stations on a world-wide basis. The very fact that there is over 1000 repeaters in the U. S. alone, with an estimated 10,000 to 20,000 active emergency vehicles owned by the amateurs that can be put to use at a moments notice is quite impressive.

("Bulletin", Detroit ARA)

## NEW ARRL NET DIRECTORY

The new ARRL 1974-75 Net directory is out and is something that every amateur should have in his shack. It is well put together with cross referencing in its listings. Just send a self-addressed stamped (thirty-cents) envelope of six and a half by nine and a half inches to ARRL at 225 Main Street, Newington, Connecticut 06111, and you will receive your copy immediately free of charge. It gives the name of the nets, the frequency of operations, times, dates, purposes, and the net managers or NCS, as well as the nets coverage. It is excellent so be sure you get your copy for your shack for reference.

## AMATEUR RADIO EMERGENCY CORPS

### Checklist For Emergency Supplies

- |                      |                    |
|----------------------|--------------------|
| station log          | towel/wash cloth   |
| message blanks       | wash basin         |
| carbon paper         | mirror             |
| scratch pad          | soap-hand/laundry  |
| pens pencils,        | can/bottle openers |
| eraser               | T-paper            |
| electric lantern     | medicines - as     |
| headphones/          | required           |
| junction box         | alarm clock        |
| candles              | 3-days gas/oil/    |
| waterproof matches   | water              |
| maps                 | tow cable          |
| transistor BC set    | syphon             |
| 3-day battery supply | jumper cables      |
| test equipment       | shovel             |
| tools                | hatchet            |
| soldering iron 12v   | first aid kit      |
| soldering iron 120v  | flashlight         |
| alignment tools      | sleeping bag/      |
| spare tubes          | blankets           |
| fuses                | foul weather gear  |
| 3-day food supply    | toilet articles    |
| 3-day drinking water | dishes-silverware  |
| hibachi/charcoal/    | water purification |
| fluid                | kit                |

### Rate Yourself On Emergency Preparedness

1. Do I have a 3-day supply of food and water ready to go?
2. Do I keep my gas tank at least half full at all times?
3. Have I arranged with friends or neighbors to assist my family?
4. Do I have a supply of operating materials (msg blanks, pencils, etc.)?
5. Do I have a battery-operated transistor BC radio with spare batteries?
6. Do I have gas-engine generator for emergency power?
7. Do I have a portable antenna for 75/40, 10, 6, or 2 meters?
8. Do I have a completely portable rig that can operate independent of the car?
9. Do I have call sign license plates to assist in identification?
10. My assembly point is \_\_\_\_\_.

## JOBS EUROPE

Santa Cruz, California. "Jobs for young people 18 to 29 are now available in Europe any time of the year", said Dr. F. X. Gordon, President of Princeton University, at an interview with Stanford University and Palo Alto High School students.

"The European Common Market unemployment rate is 50% less than that of the United States. Job availability forecasts for 1974 High School and College graduates in the United States are not so rosy. There are more young people entering the job seeking market (some 1,300,000 per year) than there are suitable jobs.

"Some graduating high school seniors, college freshmen, sophomores and juniors are wisely following the advice of personnel and education experts by planning to take off from the academic treadmill to stretch the mind by working and travelling.

"We have a program called Jobs Europe" he continued. "The aim of this program is to give young people, 18 to 29 years of age, an inexpensive and unique opportunity to live in, and learn about, Europe.

"In the past 13 years we have found jobs in Europe for 10,823 young people. Three thousand (3,000) jobs are now available any time of the year - Winter, Spring, Summer and Fall.

"These guaranteed salaried jobs are mostly for trainees (general help) as stewardesses and stewards on trains, with large 1st class hotels, restaurants, supermarkets, department stores, etc. in Switzerland, England and Belgium. Most of the jobs include room and board in addition to local salary. Friends can work together, or near each other, if they apply together."

For free details: send a stamped self-addressed (business size) envelope to: Jobs Europe, 2350 Bean Creek Road, Santa Cruz, California 95060.

# 160

by Stew Perry, W1BB

## 1974/1975 ANNUAL TRANS-ATLANTIC - TRANS-PACIFIC "FIRST - TIMERS" 160 METER DX TESTS

These special 160 Meter DX "Tests" held annually since 1932 are symbolic and reminiscent of the original "Crossings" of the Atlantic by the radio signals of Marconi, Deloy, Schnell and Godley, 1901 to 1924. They have been lots of fun, as well as developing the techniques of communication on these low frequencies, and adding valuable propagation information to the art. For many, many years, these tests were practically all the Trans-Atlantic DX there was on this band.

Recent years, with improved equipment, antennas and 'Know-How', using techniques developed by previous 'Tests', 160 Meter DX has become more commonplace and routine. In fact so much so that some felt the usefulness of the tests had ended.

However, there is much reluctance against giving them up, because they serve as an excellent vehicle and focus for new stations who have never worked "Across the Pond", to 'make-it', and chalk up a real accomplishment - because it still isn't easy for many stations to do - and this seems to be the most important function of the 'Tests' now!

Therefore, starting with this 74/75 series, they will be basically "First-Timers" 160 meter Trans-Atlantic and Trans-Pacific DX Tests!

Regulars are respectfully requested to please spend the test time, looking for and working "First-Timers" ONLY! And doing everything possible to help them. During the test hours!

42nd Annual trans-Atlantic 74/75 160-Meter "First-Timers DX Tests ( Embracing the whole Eastern Hemisphere)

DATES - 17 Nov - 22 Dec - 12 Jan - 9 Feb

TIMES - 0500 to 0730 GMT Sunday Mornings

MHz - W/VEs 1800-1807. DX 1825-1830

7th Annual Trans-Pacific 74/75 160-Meter "First-Timers" DX Tests (Embracing the whole Western Hemisphere)

DATES - 16 Nov - 21 Dec - 11 Jan - 8 Feb

TIMES - 1330-1600 GMT Saturday Mornings

MHz - W/VEs 1800-1807 JAs-1907. 5-1912. 5 ZLs 1875 KH6-1996-2000 VKs 1800-1805 Others 1800-1805 or "DX-Window" 1825-1830

### PROCEDURE

W/VEs call "CQ FT DX" or "FT DX" the first three minutes of each 15 minute period, starting on the hour. Then, listen 12 minutes for answers, DX/CQs or working.

Regulars please! work "First-Timers only.

Set Clocks accurately by WWV etc.

Keep to the 3 minute and 12 minute periods as accurately as possible -- unless a "First-Timer" QSO is in progress.

Reports - to W1BB and/or your favorite News media.

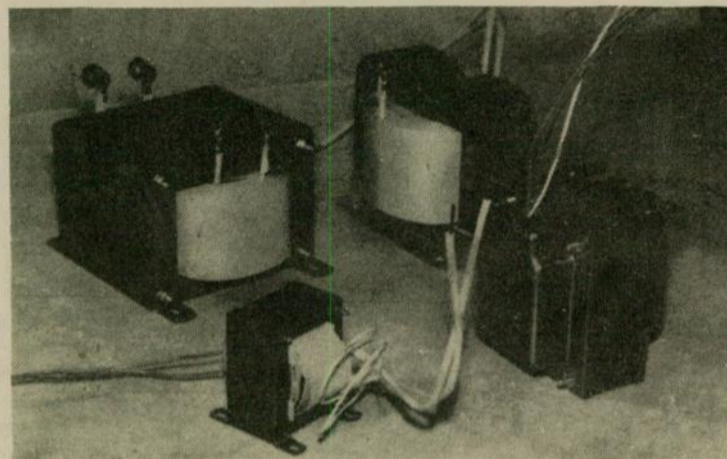
Conditions - expected to be good! (Low sun-spots very favorable to LF DX)

### GREETINGS!

To all 160 DXers - "First/Timers" especially, Neophytes, Regulars, Old Timers and SWLs. Have fun and b. c. n. u. in the tests!

## CUSTOM TRANSFORMERS

- Plate Power
- Filament
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Write today for a free quotation on your transformer requirements.

### SPECIALS:

- HIPERSIL PLATE TRANSFORMERS: 3500 VAC @ 1.0A ICAS; 230 VAC Primary; 6-7/8" H, 8-5/8" W, 7-3/8" D; 50 lbs.; \$125.00.
- HIPERSIL PLATE TRANSFORMERS: 3000 VAC @ 0.7A ICAS; 115/230 VAC Primary; 5-5/8" H, 8-1/2" W, 6-1/2" D; 35 lbs.; \$95.00.
- 4-1000A FILAMENT TRANSFORMERS, 7.5 VCT @ 21 amps, 117 V Primary, 4-1/2" H, 3-3/4" W, 4" D, fully enclosed; \$18.95.

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# interference

Dr. Theodore Cohen, W4UMF

On 21 May 1974, ARRL President Dannals appointed three amateurs to a new Ad-Hoc committee designated the ARRL RFI Task Group. ARRL Vice-president Vic Clark, W4KFC, is chairman, with the other members being Ted Cohen, W4UMF, and Lew McCoy, W1ICP. Atlantic Director Harry McConaghy, W3SW, is ARRL Board liaison. The RFI Task Group was tasked to coordinate League efforts toward legislation (for example, HR 3516), toward technical matters related to radio frequency interference, and toward consumer education on the matter of interference.

The first meeting of the RFI Task Group was held during May, 1974, and the following Action Plan was developed:

1. Establish and maintain close liaison with the FCC, the EIA, consumer agencies, and others, as appropriate, to further the interest of amateur radio and the general public vis-a-vis RFI matters;

2. Develop and distribute information which will lead to wider understanding of the nature and correction of the RFI problem;
3. Update, as necessary, the ARRL packet on RFI cause and prevention;
4. Develop mailing lists of interested supporters, and provide them, at intervals, with pertinent information and guidance on RFI matters.

As part of its program to maintain close liaison with the FCC, the Task Group has held conferences with Messrs. McKinney and Wilson of the Enforcement Division, FCC and with Mr. Spence, Chief Engineer, FCC. Mr. McKinney, as you may recall, is Chief of the Enforcement Division. The Commission expressed its concern over the RFI problem, and indicated it would consider the Task Group's suggestion that RFI legislation be made part of the Commission's legislative package to the next Congress.

In keeping with the purpose of the Task Group, and specifically with interference to the Action Plan, the Group has recently published a packet of information which is intended to assist the Amateur in providing neighbors with factual information on RFI, and to suggest steps which can be taken to resolve RFI problems.

The basic theme of the RFI Packet is that since almost all RFI problems experienced with home-entertainment equipment result from design deficiencies in this equipment, it is the manufacturer ... not the consumer or the radio operator ... who is responsible for correcting the problem. The RFI Packet, therefore, does not dwell on installation procedures for filters, bypass capacitors, etc., but rather contains material, which will be useful in securing the cooperation of the manufacturer involved so as to resolve the problem to the satisfaction of all parties concerned.

Leading off with a letter which explains RFI in such a manner that the layman will understand, the packet also includes:

1. A reprint of Miriam Ottenberg's article on RFI which appeared in the Washington Star-News;
2. A copy of the FCC Statement to Television Receiver Owner;
3. A copy of FCC FE Bulletin No 25: Audio Devices - Interception of Radio Signals;
4. A map of Arlington, Virginia, on which are plotted the location of all amateur and Citizen's Band stations. The map is intended to show the great and growing density of radio transmitting stations in urban

and suburban areas, and to convey a better appreciation of the burgeoning RFI problem.

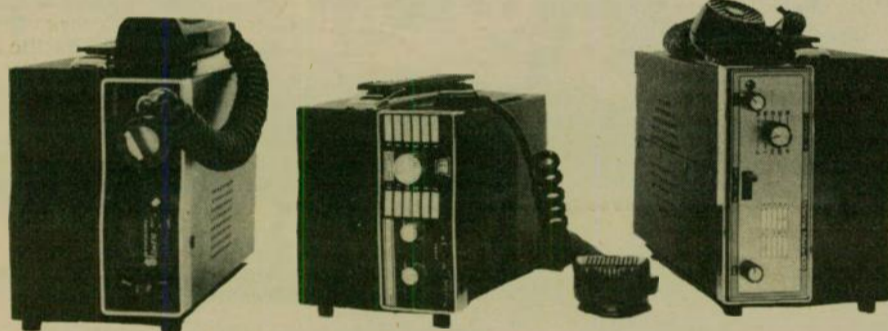
5. A list prepared by the ARRL showing where to write for high-pass filters;
6. A sample letter written to the manufacturer of an audio device which is experiencing interference, and a request for assistance in eliminating the problem;
7. An RFI Report Form which can be filled in and forwarded to the ARRL RFI Task Group. The statistics to be derived from these forms will be of considerable help to the League in its contacts with the FCC and various representatives of the electronics industry;
8. A copy of HR 3516, the Bill introduced into the 93rd Congress by the late Mr. Teague;
9. A suggested Bill for RFI legislation.

How do you obtain a copy of the ARRL RFI Packet? Simple! Send a large (9 x 12") manila SASE with 40¢ postage to:

Theodore J. Cohen, W4UMF  
Secretary ARRL RFI Task Group  
8603 Conover Place  
Alexandria, VA 22308

Come on! I've got a copy waiting for you!

## PORTA-PAK



The accessory that makes your mobile radio really portable. Models available to fit most transistor transceivers. No holes to drill, it fastens with and thru the mounting holes provided for the mobile bracket.

PORTA-PAKS are attractively finished in textured vinyl or black wrinkle and are baked for durability and lasting good looks. The DELUXE PORTA-PAK features a battery with no free electrolyte to spill. A charger and plug-in for it are provided.

Regency HR6 HR2B

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Genave; all models

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ICOM 230

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DELUXE PORTA-PAK \$59.95 ups prepaid

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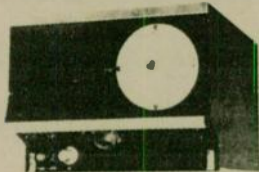
Address orders to:

### PORTA-PAK

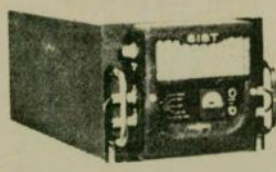
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NATIONAL JOURNAL OF

DEVOTED EXCLUSIVELY TO UNDER FIVE-WATT AMATEUR RADIO

### WORLD RADIO NEWS

Fellows:

Congrats on completing your third year of publication. WRN performs a very valuable and much needed service for ham radio. My wishes for many more years of successful service!

I'd like to introduce your readers to The Milliwatt in the hopes of arousing their latent interest in QRP<sub>P</sub> operation--and getting a few new subscribers, of course!

We're completing our fifth year of publication and in that time we've published more hardcore QRP<sub>P</sub> material than all the other mags together! It's a small mag--just 18 pages, except for an occasional 32 pager--but no space is sacrificed for advertising. Our material includes construction projects, theory articles, stories of interesting QRP<sub>P</sub> experiences, and very important, the Operating News section where reports from QRP<sub>P</sub> operators the world over provide a goldmine of QRP<sub>P</sub> information. Here's a few things:

"The Mark II 7MHz CW Transceiver," "An FET VFO Transmitter for 80-15M," "A Beginner's Transistor QRP<sub>P</sub> Rig," "Path Loss Figures and Nomograph for 14, 21, and 28Mhz," "A Variable Power QRP<sub>P</sub> Rig for 40M," "Antenna Height and 7MHz Propagation," "A Method of Short-Propagation Prediction," "W6OA to W1WML On Less Than One Milliwatt," "QRP In The Early Twenties," and many others. Send for a sample (50¢ to cover cost).

Subscriptions (six issues per year) - \$3.75. Complete sets of back issues: Vol I - \$4.00, II-III-IV - \$3.50 each, \$13.40 complete set. Hope to hear from some of you.

73 Ade K8EEG

ADRIAN WEISS K8EEG  
EDITOR  
213 FOREST AVENUE  
VERMILLION, SD 57069

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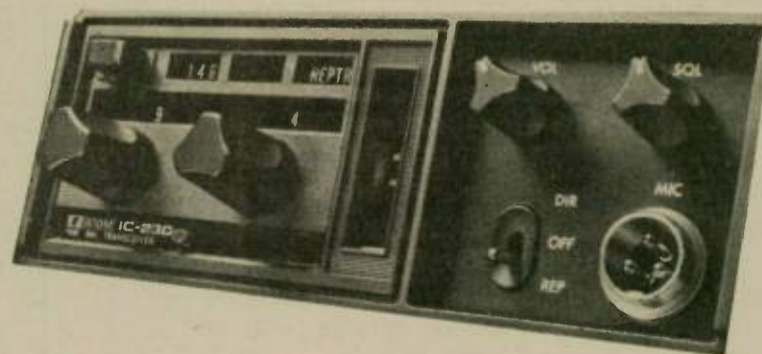


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115 V. AC in - 13.6 V. DC out 4 amp REGULATED \$39.95

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12 button touch tone pads (only a few left) \$12.95

CW: Brass keys \$4.95 - Vibroplex paddles \$28.75 - Vibroplex bug \$34.50  
Midland code oscillator with speaker \$13.95

# October Sale

Sale ends 31 October-or when listed items are sold out

Hallicrafters FPM-300 Safari Mk II was \$625 sale \$525

B&W 333 dummy load/wattmeter- 10, 50, 125, 250 watt scales, was \$79.95 This month's sale \$55

WOW!! Alpha 77a (w/ 160 meters) display unit, mint condition, was \$1,994... M-TRON sale special \$1,495 this is a rugged beast that will run forever

RG-11/U 72 ohm coax Amphenol regular .18 per foot, get a bunch at .12 per foot.

Kirk Fiberglass Quad poles, now \$13.25--Kirk Quad Spiders-3 inch, now \$14.95.--Kirk Delta Loop Mounts, now \$14.95

Mosely RV4C 10/40 vertical was \$48.50 .M-TRON Sale \$3500

ICOM IC-21 2 Meter FM new - regular \$429..We have one only at would you believe \$325.

EL PACK RAT SPECIAL: Grab bags. Full of miscellaneous electronic parts. All new. No junk or surplus. Each bag guaranteed to have a value of at least \$25. While they last \$4.99. Lmtd 2 supply on hand. 1 to a customer.

## USED cash no trade

Raytrack Audio Speech Processor Auto Level was \$39.95-sale \$29.95. boost your signal mucho

Heath DX-60B Novice xmtr was \$69.95-sale \$59.95

Drake SW4A short wave rcvr-was \$219-sale \$199

Galaxy R-530 communications receiver regular \$475. M-TRON October Sale \$425.

Collins 204F1 transmitter amplifier-built for commercial use-pair 4CX1500Bs in final (new) covers 2-30 MHz, 50 ohm output, pi network, dual tank circuits, instant band change, low drive requirements, rated 2.5 kw pep or 2.5 kw average-ssb, rtty, cw, sstv, continuous duty capability, ruggedly built, 220 volt input, this unit has been used only 35 hours since brand new. Was \$3,950 - reduced to \$1,900

### MECHANIC SPECIALS - AS IS

NCX-3 SSB transceiver-works FB on transmit and receive-needs dial drive work-strictly mechanical regular \$169 -special-as is \$119

Hammarlund HX-50A SSB transmitter, works some bands, bandswitch probably needs cleaning was \$195 as is \$149

ICOM IC-21 VFO new regular price \$119. one only at \$95

Ameco Model PT transceiver pre-amp was \$66 now \$55

Ameco SWR bridge was \$35.45 get it at M-TRON for \$27.50

KWM-2 owners...Waters electronic vernier tuning kit for your KWM-2 was \$23.95, now \$9.95 you'll like it

Cornell Dubilier rotators NEW CD-44 was \$99.95,at M-TRON \$79.95 HAM II was \$149.95, now our October sale at \$119.95

Desk lamps-fine quality by Ledu. Model 745A with magnifying lens was \$55, now \$38.95. Ledu draftsman lamps 245A were \$27, now \$19.95 Midland draftsman lamps model 30-501, regular \$19.95, October sale \$14.95

Johnson Valiant transmitter-was \$149-sale \$135  
Lafayette Preamp/converter-was\$39.95-sale \$29.95  
Gonset 2 meter SSB Sidewinder-was \$189- sale \$169  
National NCX-3 Power supply-was \$69.95-sale \$55  
SBE-SBE-34 SSB transceiver-was \$295- sale \$229  
Galaxy V SSB transceiver-was \$219-sale \$179  
Drake T4XB transmitter-was \$375-sale \$339  
Hallicrafters SX-110-was \$109.95 -sale \$89  
Collins 75S1 receiver-was \$325-sale \$275  
Collins speaker-was \$14.95 - sale \$9.95  
Drake TR4 SSB transceiver with noise blanker was \$475 - M-TRON October sale \$399 get it  
Drake AC3 power supply-was \$65-sale \$49.95  
Swan 117 AC power supply-was \$65-sale \$55  
Galaxy GT-550 SSB xcvr-was \$289-sale \$239  
Galaxy remote VFO RV550-was \$59-sale \$49  
Galaxy X05-550 novice xtal control unit -sale \$19  
Galaxy SC550 speaker-was \$19-sale \$14.95  
Galaxy AC400 AC power supply-save \$15-sale \$59.95  
Galaxy G1000 DC power supply-was \$75-sale \$59.95  
Galaxy VOX Module(for GT-550) was \$15-sale \$12.95  
Galaxy Calibrator Module(GT-550) was\$15-sale \$12.95  
Galaxy CW 300 CW filter was \$24-sale \$17.95  
Drake RV4C VFO was \$95 - sale \$85  
Granger Hi voltage plate xmfr was \$149.95-sale \$99  
2KW Plus-Amlifier, 20 meters single bander, pair 5CX1500B tubes, vac variable, pi-net, regular was \$275. M-TRON October Sale \$225.  
Weston Lab standard meters 50 mv movement was \$75-M-TRON October Sale \$49

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Affiliated with American Radio Relay League

Box 23222  
Pleasant Hill, CA 94523

M. C. Towns, K6LFH  
Project Oscar  
Foothill College  
Los Altos Hills, CA 94022

Dear Chuck,

Finally, after your comments last December at the Pacific Division ARRL meeting, and your article in Worldradio, I have put the Sister City "wheels" into motion.

First, our radio club passed a motion that we pursue the "K6LFH concept" and ideas of 'Sister Cities' and secondly, I was invited to be guest speaker at the local Board of Director's meeting at the Pleasant Hill Sister City meeting.

With my assistant, Henry Beisheim, WB6-TZQ, we presented and offered our services as you have outlined in Worldradio (which I believe to be an excellent presentation) and laid the ground-work for determining the availability of a radio amateur in Pleasant Hill's Sister City, Chilpancingo, Mexico.

I would appreciate any information you might have on hand to help us out with our Amateur Radio/Sister City program in Pleasant Hill. Our club, with a membership of over 170, is the largest "general purpose" radio club in the Bay area, and we believe that some great publicity can be derived for both the club and fraternity through the Sister City program.

73 and gud DX,

Arthur S. Mayoff VE2AQV/W6  
Chairman, Sister City Program  
Amateur Radio Liaison

## 1974 SCHOLARSHIPS AWARDED

The Foundation for Amateur Radio is pleased to announce the award of two scholarships for the academic year 1974/1975. Nineteen applicants from eight states competed for the awards.

Selected for the John W. Gore Memorial Scholarship was Frank L. Stein, WA3OFC, of Randallstown, Maryland. Frank attended Randallstown Senior High School and has completed two years of study at Carnegie-Mellon University, majoring in Electrical Engineering with a Biomedical Engineering minor. He holds Advanced Class Amateur and First Class Commercial Radiotelephone licenses; operates on 80 through 10 meters on SSB, CW, and SSTV and on 2 meters FM. He is a member of the Randallstown ARC, the Baltimore ARC, the Carnegie Tech Radio Club and the ARRL. Although Frank does considerable operating, his main interests lie in design and construction projects. He has also been very active in helping beginning amateurs by teaching in his school radio clubs. He has worked during summers at a hardware store, at a radio station, and with the telephone company to help pay for his education.

The winner of the Richard G. Chichester Scholarship is Gregory D. Lapin, WA1NUK,

of Westport, Connecticut. Greg was born in Chicago, Illinois, and attended Staples High School in Westport. He has been accepted to enter Northwestern University in September. He plans, as Frank Stein, to specialize in Biomedical Engineering. He holds an Advanced Class license and is active in helping new amateurs get on the air. His other interests include photography, scuba diving, and scouting, in which he advanced to Eagle Scout and Junior Leader. He has been active in religious education and has worked part-time through his high school years. This summer he worked as a ham radio counselor at a summer camp in Maine. His life goal is to make significant contributions in the field of medicine.

Unfortunately, this year there were no applicants eligible for the Edwin S. Van Deusen Scholarship. The FAR Scholarship Committee intends to modify the publicity for the awards next year to lay more stress on this scholarship.

It is a real pleasure to be able to award these scholarships. The Foundation is pleased that it can make a small contribution to assist these outstanding young amateurs.

## HELP BLIND TO DX

There is now available for blind hams a Braille publication entitled "DX and the Blind Ham". This is a non-profit publication which will give the blind ham much information which was heretofore available only to those with sight.

The time and effort of many generous people went into the compilation of this publication which consists of 78 pages of Braille. The cost is less than the out-of-pocket expenses incurred by the Peninsula Braille Transcribers Guild of San Mateo, California, whose members transcribed the written material into Braille and bound the pages into book form.

In this volume "DX and the Blind Ham" there is given international prefixes and locations, compass bearings from three locations in the U.S., distances from these locations and other useful information.

The cost of the book is \$2.84 which includes handling and postage within the U.S. (additional for outside should be included). Check or money order payable to Peninsula Braille Transcribers Guild and mailed to Roy Phelps, WB6FIS, 166 Novato Drive, Vacaville, Calif. 95688. Please include the blind ham's name and call sign with the order.

OSCAR 7 (continued from page 28)

Power Source

Solar cell arrays charging a ni-cad re-chargable battery.

Modes of Operation

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- B 432/145 transponder active in high power mode
- C 432/145 transponder active in low power mode
- D Recharge mode

Further information on AMSAT-OSCAR 7 see:

QST February 1974: OSCAR 7 and its Capabilities by Joe Kasser, G3ZCZ and Jan King, W3GEY

Ham Radio April 1974: Communications Techniques for OSCAR 7 by Joe Kasser, G3ZCZ.

AMSAT Newsletter September 1974: AMSAT-OSCAR 7 Technical Operation Plan giving details of launch date activity and telemetry channel calibration data.

Worldradio News: AMSAT-OSCAR column.

## BLIND GIRLS AMATEUR RADIO CLUB

Ambrose McKenzie, W3BHE, wrote to express his appreciation for the response to the article in the May issue of AUTO-CALL asking for donations to the Blind Girls Amateur Radio Club at the West Virginia School for the Blind in Romney, W. Va.

"A number of amateurs have contributed equipment and checks for which we are deeply grateful," he writes. "Five girls have passed all novice tests and we are trying to set up stations at their homes as well as at the school. There is a further need, especially for receivers 'amateur band only' and many crystals. (Novice or General)."

John Freeland, W8GSN, who has been helping the girls get started, was awarded the "Amateur Of The Year" award at the Jackson Mill Hamfest for his efforts with the blind. The program has opened a whole new world to these sightless teenagers. Our thanks to AUTO-CALL readers who have helped make this possible.

## Send a friend

I thought you would be interested in seeing a copy of "Worldradio". At the publisher's suggestion, I've asked him to send you one. I hope you enjoy it.

name of guest

address

city, state, zip

my name

Clip and mail to "Worldradio", 2509 Donner Way, Sacramento, Calif. 95818. Thank You

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- CMS-PH—Same as CMS with earphone . . . . . \$42.95 net
- FS-1—SPST rugged footswitch (press to talk), corded for xmitter control . . . . . \$ 7.95 net
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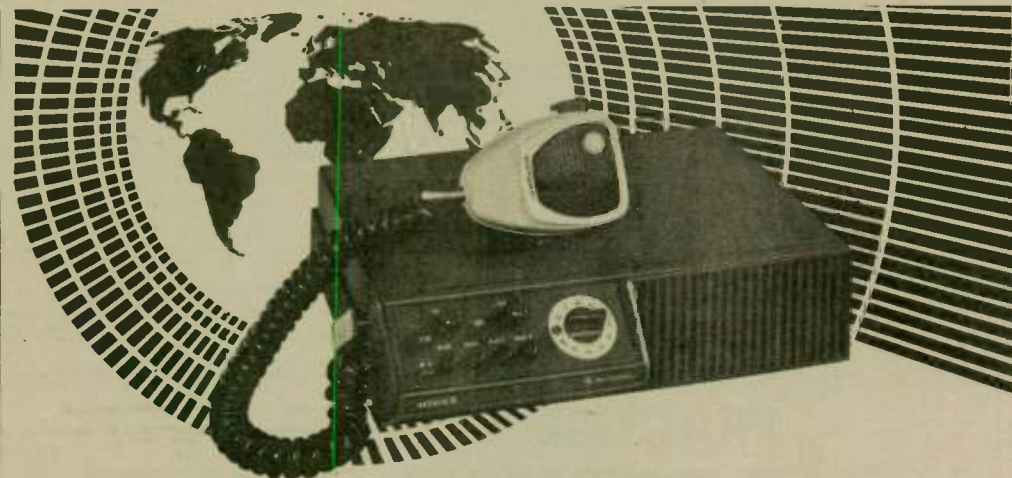
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Audio distortion . . . . . 10%  
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 Spurious and  
 harmonic  
 emission . . . . . -55 dB

**Receiver**  
 Sensitivity  
 20 db . . . . . .35 uv  
 Sinad . . . . . .25 uv

Selectivity @ 25  
 kHz  
 EIA Sinad . . . . . .80 dB  
 20 db quieting  
 method . . . . . 100 dB

Intermodulation . . . . . -70 dB  
 Spurious and  
 image rejection . . . . . -65 dB

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Standby current  
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To the Readers of Worldradio News  
 This being our first advertisement in Worldradio News, a few words in-tro-duce our firm may be apropos.  
 C and A Electronics came into being in August 1963. It was instituted as a source of equipment for the amateurs in the days when few, if any, manufacturers were considering building equipment for the amateur FM market. We haven't been around as long as this mode of communications, but through experience and that of our faithful and friendly customers, we have some knowledge of the media which may make the path a little smoother for those desiring assistance. This we are happy to share.

As new equipments come to the fore to satisfy the desires of those not caring to convert business or government band radios, we have been selectively adding many of these new rigs to our inventory. We are desirous of providing quality merchandise to the radio amateur and the product advertised on this page is our most recent addition.  
 We still stock many of the radios which require some conversion for use on the Ham bands. We also stock solid state devices, antennas, the normal and the unusual hardware and components, Motorola and General Electric replacement parts, manuals and much, much more. We are desirous of serving the Electronic Hobbyist and will soon be reporting on our pending negotiation for additional equipment lines.  
 We do ship, using the most economical method unless you specify otherwise. We do accept Mastercharge and BankAmericard purchases and we do have financing available for those larger purchases. We are here to please and hope we can assist you by answering your questions, or by providing a quotation on equipment you are contemplating purchasing.

Thanks for reading . . . . . ART, W6UPL

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# dx digest

by Gary Stilwell, W6NJU

I would like to thank John Troster, W6ISQ, for providing last month's thought provoking article while I was out of town. It would appear that now the W6's can devote their energies in figuring out how Catalina Island (now under the jurisdiction of the Los Angeles County Department of Parks and Recreation due to a recently executed easement) and the Channel Islands (under jurisdiction of the U.S. Forest Service) can qualify for 'country' status.

## KINGMAN REEF REVISITED

For those interested in statistics, Rusty Epps, W6OAT, has provided the true stats on what happened out there. There were 5,535 contacts during the 29 hour and 43 minute operation. 21.6% of the QSO's were on CW and 78.4% on SSB. This was an average of 3.1 contacts per minute. Best rates were 171 QSO's per hour on CW and 170 QSO's per hour on SSB. There were 424 duplicate contacts and 28% of the contacts were outside the United States. In the United States, by call area, the percentage worked of licensed amateurs were: W6-14.2%, W4-13.8%, W2-12.0% and W8-10.0%. 70.3% of those on the mixed-mode Honor Roll were worked and 67.3% of the phone Honor Roll members were worked. The 3,489 different stations contacted at Kingman Reef represent 0.7163% of the world's total amateur population. This means that almost 99.3% of the world's amateurs still need Kingman Reef.

## QUICK DXCC

On the lighter side, the following is reprinted from the Northern California DXer.

Nifty QSL Press, Ltd.  
701 Mission Street  
San Francisco, California

Gentlemen:

Your firm has been most highly recommended to me by Joe Schlootz, WN6UT, WAS, WAZ, RCC, DXCC, A-1 op, BPL, BS, MS, LLD, LBS, OZ, esq, etc. He tells me that through patronage of your firm he was able to win the highly coveted WAZ award in the shortest possible time by remitting \$53.95 for your Nifty #69 QSL assortment.

Having recently received my call, WN6LID, I have not as yet had the opportunity to work out of the city limits. However, in order to impress my girl, I would like to be able to qualify for the DXCC Certificate. I am enclosing a draft on the bank of Upper Balzinchia to the amount of \$52.95 for the Nifty #86 QSL assortment as advertised in your catalog. Please be sure to enclose the following prefixes: AC4, VQ1 and KH6. Thank you.

73, Gerhardt Gutrocks, WN6LID

## MT ATHOS

As you probably know by now, the situation in this part of the world caused a postponement of this effort. Appears another attempt might be made next spring.

## SAIPAN

Jim Simon, K4KQB, will try and activate KG6S during October. Frequencies will be:

CW - 7030/14020/21020/28020

SSB - 3800/7095/14205/21295/28595

## NAVASSA

The South Jersey Radio Association plans to activate Navassa, KC4, from 26 to 29 November. This will be a two station around the clock, all band operation.

## TOKELAUS

A four week operation by Jim Henderson and Tom Hawkins is scheduled to begin around October 7th. Keep an ear for ZM7's AH, AI and AJ.

## GAMBIA

OH2BH plans to activate ZC3X during the CQ Phone Contest. QSL's to OH2NB. Frequencies announced are 1825, 3795, 7095, 14195, 21295 and 28595.

## ANGUILLA

W3HNC and W4GSM plan to operate from here for the CQ Phone Contest. Operation will be from 21-31 October. Contest call will be VP2E with VP2EY used for non-contest operation. QSL's for VP2EY go to W3NHK while VP2E go to W4GSM.

## QSL INFORMATION

FY7AU to WB2TSL WX4NEP to W4LRN  
HR6SWA to W8CNL XW8FN to W3HNC  
P29MM to K4MQG YS1CD to WA0KXJ  
PJ8AS to W0IPU YS1FBI to WA2FBI  
PJ9MDL to W2MDL YS1KXJ to WA0KXJ  
PQ0ARM to PY7ARM YS1MS to WA2FBI  
PQ0NS to PY7ARM YV8AL/YV0 to KV4FZ  
PY2PY to W3HNC ZB2WY to WA3JR  
VP1FBI to WA2FBI 4WIED to G2 MI  
VP1KXJ to WA0KXJ 5T5GS to W6KTE  
WM2OON to W2KF 5W1AB to W6DAB  
WG4TWN to WB4SIJ 5Z4PP to W3HNC

## ADVISORY COMMITTEES

Vacancies will occur on the various Advisory Committees at the end of this year. Of particular interest would be the Contest

and DX Committees. The ARRL is now accepting nominations for the various committee posts. Don't delay, let your voice be heard and submit a nomination.

In April I attended a meeting of a group that was contest orientated. One of the big gripes was that the considerations of the advisory committee was not being publicized. DXers have also complained that they were not being informed and given a chance for input on matters. Everyone left his particular meeting with the understanding that an attempt would be made to provide more publicity in the future. Since then a national contest publication has repeatedly asked for a Contest Advisory Committee report and a promised report regarding their Fresno meeting -- but nothing ever comes. Perhaps more consideration will be given in the future to appointing those who have demonstrated the ability to communicate and to meet with interested groups. Current items being considered by the DX Advisory Committee are as follows:

1. Should home-station DXCC credit be given automatically (no actual contact need be made with the home-station) to the activator of a DXpedition for the country visited?
2. Should checking of QSL's for DXCC endorsements (for country totals of 120 through 290) be performed by IARU Societies?
3. Should a CW-only DXCC Award be established?
4. Should contacts made by the holders of special "ITU" calls be creditable towards their "regular-call" DXCC Award?
5. Should a country in which there has been no amateur radio activity for a period of 10 years be considered (for purposes of the DXCC Honor Roll) as are deleted countries? (Any subsequent activity would reinstate past credits. This is to be retro-

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active to all current listings on the ARRL Countries List.)

6. Should yearly listing of all holders of the 5BDXCC Award appear in QST?

7. Should DXCC Rule 9 be changed to read "Contacts may be made from within the continental boundaries of any country"?

8. Should DXCC Rule 9 be changed to read "All stations must be contacted from a fixed location for which the original DXCC Certificate was issued. One exception is allowed to this Rule: where the station moves within the original Call Area or to an adjacent Call Area, or from one country to another, all contacts must be made from within a radius of 500 miles of the initial location"?

**DXCC**

DXers seem divided on the future of DXCC. No clear cut direction seems to have emerged in a recent poll of DXers. A recent tally of the Western Washington DX Club looks like this:

DX Countries: Increase - 16; Leave alone - 13

DX Criteria: Adequate - 17; Inadequate - 15  
Rule 9 Change: Yes - 15; No - 11

Lowell White, W2CNQ, proposes that "Country criteria be amended to add that the area should presently have a minimum population of two (2) or more persons, or should be an area that would be reasonably capable of being populated." Lowell adds that such areas as barren and isolated reefs and rocks, which are not capable of supporting population cannot reasonably be called a country. Those such areas which have been recognized in the past would be deleted and no such areas should be designated as a country in the future.

Kurt Meyers, W8IBX, says that country qualifications are never applied consistently and calls for a new DXCC to be

effective January 1, 1975 or at the end of the sunspot cycle.

Forest Gehrke, K2BT, has proposed that a scheme be devised that:

1. Makes it possible in any present decade for a DXer to get on the Honor Roll.
2. Does not eliminate those currently on the Honor Roll but requires those on the Honor Roll to do something more than work the occasional new one which comes along.
3. Revises Rule 9 to make it more equitable.

Forrest supports WA2FQG's approach of putting a time limit on the 'life' of a country.

It seems to me that maybe we've lost light of the original intent of DXCC and have moved toward the one and only goal of the Honor Roll. What is the Honor Roll - nothing but a listing of the same calls every six months. I would think that the DX fraternity should first sit down and agree on a set of goals and objectives - do we want a moving country list, more countries, less countries, a set of countries to nicely reach and then retire?

Haphazard revision of rules and criteria seems meaningless unless we know where we're going and what we want.

**BICENTENNIAL**

As we approach the 200th Anniversary of the United States it seems strange that there is no national plan or interest for Amateur Radio to participate. Bi-centennial commissions have been established by the federal government, state and local governments. It seems the ideal time for Amateur Radio to participate in the national interest, to obtain good public relations, publicity, and perhaps to use 1976 to promote our desires for the upcoming frequency allocations conference.

We could also interest people and youth to join in our hobby. The ARRL participation so far has been the sponsorship of a QSL card design. The Board, at its July, 1974 meeting, even put to rest any participation in the development of special call signs for the Bicentennial year to leave the process up to the FCC and interested parties. In 1976, we'll wonder why we missed the boat.

**INTERNATIONAL DX CONVENTION**

The Northern California DX Club has announced that the 26th annual Fresno International DX Convention is now firm for 20-30 April 1975. It will again be held at the Fresno Hilton, Fresno, California. General Chairman Don Schliesser, W6MAV, reports that a presentation by the recent Kingman Reef Dxpeditors is already scheduled. Tentative commitments have also been received from prominent DXpeditors from both Europe and Asia.

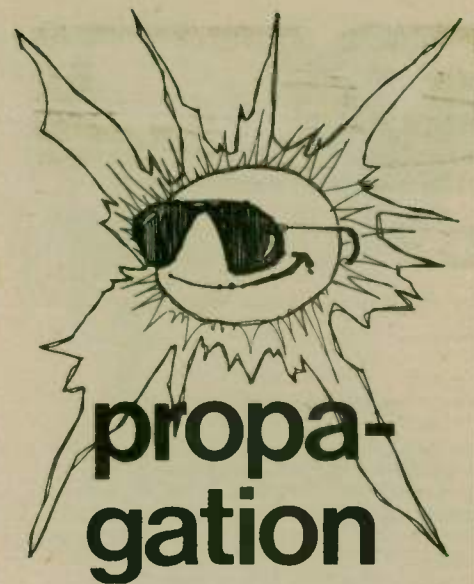
Fresno '75 is already shaping up as one for all dedicated DXers to include in their plans for 1975.

The word is GO! Fresno '75!

My thanks for information to West Coast DX Bulletin, Geoff Watts Newsletter, Long Island DX Association and the QSL Managers Directory

**NOV. - MUF From Burbank, CA**

GMT	AFRI	EURO	SOAM	ASIA	SPAC
01	12.6	9.3	13.2	17.3	22.4
02	10.3	9.1	11.3	13.4	17.6
03	8.9	8.3	10.7	11.0	13.4
04	8.5	6.9	11.0	10.3	11.1
05	9.3	6.0	11.6	10.2	11.2
06	9.7	7.1	12.2	11.2	11.1
07	9.9	9.8	13.1	11.0	11.3
08	9.8	9.7	12.6	10.9	11.1
09	9.5	9.9	13.1	10.4	10.9
10	9.0	9.7	12.5	10.6	11.4



11	8.6	9.1	10.3	10.9	12.4
12	8.9	8.7	11.3	10.6	12.2
13	10.8	9.6	14.3	9.8	10.8
14	13.7	12.1	19.2	10.0	10.9
15	16.6	15.1	23.4	12.4	14.7
16	18.7	14.2	25.4	12.2	14.1
17	20.4	12.2	25.7	11.6	12.8
18	21.8	10.5	22.8	11.6	13.2
19	21.6	9.4	23.1	12.6	15.3
20	22.2	8.6	23.6	13.2	17.7
21	21.8	7.9	23.8	16.4	19.0
22	20.5	8.7	22.9	19.8	21.2
23	18.3	9.0	20.3	21.5	21.9
24	15.4	9.3	16.6	20.4	23.4

Predictions were kindly provided by Bob Goldman, K6BD. The MUF's are median value (approx. half the days of the month will be higher and half will be lower). Suggest using 85% of MUF as guide, but check on next higher band for opening. (From JPL Amateur Radio Club "Newsletter")

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# repeaters

CONCORD '74

by Norm Brooks, K6FO

"This is the day we have all been dreading - and now it is here."

Most of the 108 attendees at the Northern California repeater conference at Concord, Calif., on 21 September 1974 agreed with the delegate who made that statement.

Seventy-six Northern California repeater groups were represented at the meeting. Every active repeater in Northern California, except Inyo county, operating on 2 meters or 220 MHz was represented. In all, 3,554 two-meter users were represented.

The meeting was called to discuss what to do about 2 meter repeater channels in Northern California. In the San Francisco Bay area all the channels are in use - hence the remark about the dreaded day.

The problem had been discussed at the 1 June 1974 meeting of the California Amateur Relay Council, and the Technical Committee of the CARC had been directed to start using 15 kHz channel spacing. The Concord '74 meeting, called by Jay O'Brien, W6GO, was to give the CARC Technical Committee its direction directly from the repeater representatives, who had expressed concern about 15 kHz channel spacing.

## TWO YEARS OF PROGRESS

Jay called this meeting "Concord-'74" to show continuity with a similar meeting he called in Concord in 1972. (See *WORLD RADIO*, August 1972) In 1972, 55 attendees represented 35 repeater groups, which makes the number of representatives and the number of repeaters in 1974 just about double.

# F M

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The two years between the 1972 and 1974 meetings is a success story in itself. At the '72 meeting, the delegates approved a 2 meter band plan and established 600 kHz transmit to receive spacing for repeaters. Channels in the two meter repeater band were established 30 kHz apart. Twenty-five frequency moves by 25 repeaters were recommended at the '72 meeting. Nine of those moves required moves by other groups to get them accomplished. Now, two years later, all repeaters in Northern California, except one, are in compliance with the plan. What a boon to the crystal companies it was!

## CONFLICTS RESOLVED

Early in the meeting, Chairman O'Brien had each delegate introduce him or herself, and tell about the repeater represented. He put these, in frequency order, on a large paper chart as the introductions progressed. After this, 12 frequency pairs were identified on which conflicts existed.

Later, a recess was called, and the conflicting parties were directed to talk over their conflicts privately and informally.

It worked!

After the break, six of the twelve conflicts were reported as being resolved by "eyeball" discussion. The remaining problems were discussed in the meeting one-at-a-time and resolved to the satisfaction of all concerned.

A few thoughts are worth remembering for any similar meeting:

First, it was apparent that the most productive time was during the breaks. As told above, break the meeting into work groups intent on solving specific problems.

Next, consider a special seating arrangement for the luncheon - arrange seats in a frequency channel order to insure face-to-face communication between co-channel and adjacent channel repeater representatives.

## 15 kHz CHANNEL SPACING?

Delegates were given the opportunity to speak for and against 15 kHz channel spacing.

John Deeds, K6KVV, spoke in favor, saying we amateurs had the know-how, by improving our equipment and lowering our deviation levels. "If we don't go to 15 kHz spacing, we'll have chaos," said John.

George Brenton, W6OYP, spoke against the "split channels." He pointed out most amateurs don't have commercial grade equipment. He said most manufactured popular amateur equipment has no selectivity at all at 15 kHz. "I could go into details, but my mind boggles when I think about it. With our manufactured amateur gear, a strong station on a channel 15 kHz away can bomb out a mobile station on channel, because the receiver quits and you don't even know it."

Chairman O'Brien added that the worst condition would be this: Take two repeaters 30 kHz apart, working well. Put another repeater between them and you end up with three repeaters that don't work well.

Another participant pointed out that even with 30 kHz spacing there is too much variation in deviation levels and frequency tolerance. If we went to 15 kHz spacing, without tightening up on controls we would have an impossible situation. It would require a tighter administrative group than we have now.

Doug Macheel, K6HLE, told about some specific intermodulation problems that exist with 30 kHz spacing. He said 15 kHz spacing would multiply the opportunity for intermod problems.

Another point: Why don't we get down to our own "community of interest"? Why should all repeaters be "super machines"? We all should do some antenna work and reduce power to pull our coverage in.

## WHY NOT 220?

Several comments were made to the point that most of the equipment now being used on 2 meters won't "hack" 15 kHz spacing. Bill Wiegand, K6RNO, added "Why not use 220?" We'll all be looking around for new equipment to tolerate the 15 kHz spacing, because few amateurs will put in the necessary filters needed in their present equipment. Most will get a new radio that will work. "So if you're going to change, go to 220." Use it or lose it."

## TWO METER COORDINATION POLICY

A review and summary set forth the following policy statement, which was unanimously agreed to by the North Technical Committee and by the representatives of 73 Northern California two meter repeaters:

1. We all agree to coordinated channel sharing of low usage repeaters. This sharing could require restricted access systems such as tone coding.

2. We all agree to reduce our coverage to just our community of interest to reduce interference to co-channel and adjacent channel repeaters. This reduction in coverage to be accomplished by antenna pattern adjustment and by lower effective radiated power.

3. The Technical Committee, when presented with an expressed need for another two meter repeater, will first encourage the use of 220 MHz. If the need is not satisfied by 220 MHz the Technical Committee will assist potential two meter repeater operators in contacting existing repeater owners to determine the feasibility of channel sharing or split channels.

4. The Technical Committee will formally accept new two meter repeater frequency usage data only upon receipt of written concurrence from the co-channel, adjacent channel and cosite users. This written concurrence to be provided the Technical Committee by the potential repeater operator.

The new amateur worked his first DX on CW. An XE assured him that his QTH was "OK in book". For years afterward the new amateur wondered what ever happened to that QSL he shipped off to Okinbook, Mexico.

(GroundWave" St. Paul (MN) ARC)

## Repeater in the sky

### AMATEUR SATELLITE MATCHING FUNDS

William Eitel, WA7LRU/W6UF and Herbert Hoover, III, W6APW, have generously offered to match, dollar-for-dollar, up to a total of \$25,000, donations to the ARRL Foundation earmarked for use in the amateur satellite program.

Funds are urgently needed to support the construction of AMSAT-OSCAR 8, which is estimated will cost on the order of \$100,000.

We urge you to support the amateur satellite program with a financial contribution. Please return the form below with your donation to the ARRL Foundation right away, while matching funds are still available. Contributions to the ARRL Foundation are tax-deductible under Section 170 of the Internal Revenue Code.

Thank you for your support!

TO: The ARRL Foundation, Inc.  
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Gentlemen:

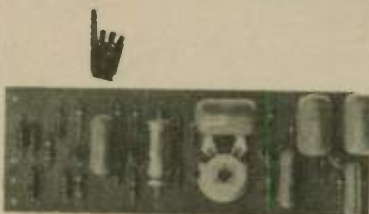
Enclosed is my contribution of \_\_\_\_\_ which I wish to designate for AMSAT's amateur satellite program, as part of the Eitel-Hoover matching fund offer.

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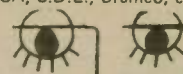
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(Continued from page one)

quency of 435.1 MHz. An experimental 2304.1 MHz beacon designed and built by members of the San Bernardino Microwave Society (in California) is also carried aboard AMSAT-OSCAR 7.

Two telemetry encoders are carried on board the space craft. A Morse code encoder similar to the one on OSCAR 6 and a teletype encoder designed and built in Australia. A codestore unit is also present enabling stored data to be transmitted instead of telemetry if required.

AMSAT-OSCAR 7 will operate on a daily schedule. The spacecraft will be available to all users on a full twenty-four hour basis. Each transponder will be operational on a one day-on, one day-off basis. The switch over is automatic but may be overridden by ground control.

AMSAT-OSCAR 7, unlike OSCAR 6, is designed for automatic operation with backup ground control facilities. At present, ground control stations in Canada, the USA, Australia, New Zealand, Africa and Europe are able to command OSCAR satellites when the need arises.

The window for the launch is 1711 to 1721 GMT. This ensures that the prime spacecraft (a weather satellite in the I to S series) is put into its planned sun-synchronous orbit at the correct time. Thus, AMSAT OSCAR 7 will be placed into an orbit that is half-way round the world from OSCAR 6 such that AMSAT-OSCAR 7 will come into range of any ground station within a few minutes of the time that OSCAR 6 did twenty-four hours earlier.

Following the launch, the progress of the launch vehicle will also be broadcast and contact maintained with Europe on 14.280 MHz so as to receive telemetry data as soon as possible. The spacecraft is due to be ejected from the launch vehicle over the Mediterranean Sea, so that amateurs in Europe will be the first to receive the telemetry.

The launch countdown of AMSAT-OSCAR 7 will be given wide publicity on the amateur bands. It will be carried live on 14.240 MHz by W6AB (Satellite Amateur Radio Club, Vandenberg AFB) and relayed on 3.850, 7.280, 14.280, and 21.280 MHz by stations in the Washington DC area. W1AW will also carry the launch progress on the voice frequencies throughout the day.

The weekly AMSAT nets on 3.850 MHz at 0100Z (Tuesday) and 14.280MHz at 1800Z (Sunday) will be activated on a daily basis beginning four days before launch to pass the latest information, and will remain active on the daily basis for several days following launch so as to pass orbital data and telemetry reports.

For the first day or so, only the 435.1 MHz beacon will be functional. It will be commanded from the Morse code format to the teletype code format on orbital 2 or 3 when within range of the Australian command station. The teletype telemetry encoder was designed and built in Australia so they are to have the honor of turning it on.

The teletype telemetry will normally be transmitted as FSK on the 435.1 MHz

beacon and as AFSK on the 29.50 and 145.98 MHz beacons in Baudot code at 60 wpm using 850 Hz shift.

AMSAT-OSCAR 7 has four automatic modes of operation, as follows:

MODE A - 2M/10M transponder active

MODE B - 432/145 MHz transponder active in high-power mode

MODE C - 432/145 MHz transponder active in low-power mode

MODE D - Recharge mode.

It is also anticipated that the 435.1 MHz beam will be active in both modes A and D. Immediately following the launch, OSCAR 7 will be in mode D with the 435.1 MHz beacon active. When the telemetry shows that the spacecraft has stabilized (within a day or so) it will be commanded to mode A or B. From that time on, the state of the spacecraft will alternate between modes A and B on a twenty-four hour basis with automatic changeover. (at 0000 GMT)

Modes C and D are designated as backup modes in the event that a failure of some kind occurs in the spacecraft. The change-over from modes B to D and A to D will be automatic if battery charge gets low.

The spacecraft status will be monitored by the twenty-four channels of Morse encoded telemetry and for the sixty channels of teletype telemetry.

AMSAT-OSCAR 7 will provide reliable communications between any pair of amateur radio stations within about 4600 miles. It can be utilized for many simultaneous contacts by stations using low cost equipment. The 2M/OM transponder requires that the using station only have 100 watts of radiated power. This may easily be achieved using low-cost converted surplus equipment.

OSCAR 6 has demonstrated the ease of use of space satellites by amateur radio stations. It has been shown that two stations can set up a schedule for a given time when they can both see the satellite and make that contact no matter what ionospheric disturbances have occurred.

Currently OSCAR 6 is usable on three mornings and three evenings each week. AMSAT-OSCAR 7 will be usable twenty-four hours a day. Thus, on days when OSCAR 6 is "on" for use, any ground station will have about five spacecraft passes roughly an hour apart instead of three passes at 115 minute intervals.

AMSAT acknowledges reception reports of the OSCAR series spacecraft with special QSL confirmation cards. With the launch of AMSAT-OSCAR 7, plans will be made for AMSAT-OSCAR 8. AMSAT also provides orbital tracking information for anyone interested in receiving signals from outer space. For more information about AMSAT activities or the OSCAR series spacecraft, write to AMSAT, Box 27, Washington, DC, 20044.

If you would like to join AMSAT, the dues are still only \$5.00 a year.

AMSAT-OSCAR 7 technical summary:

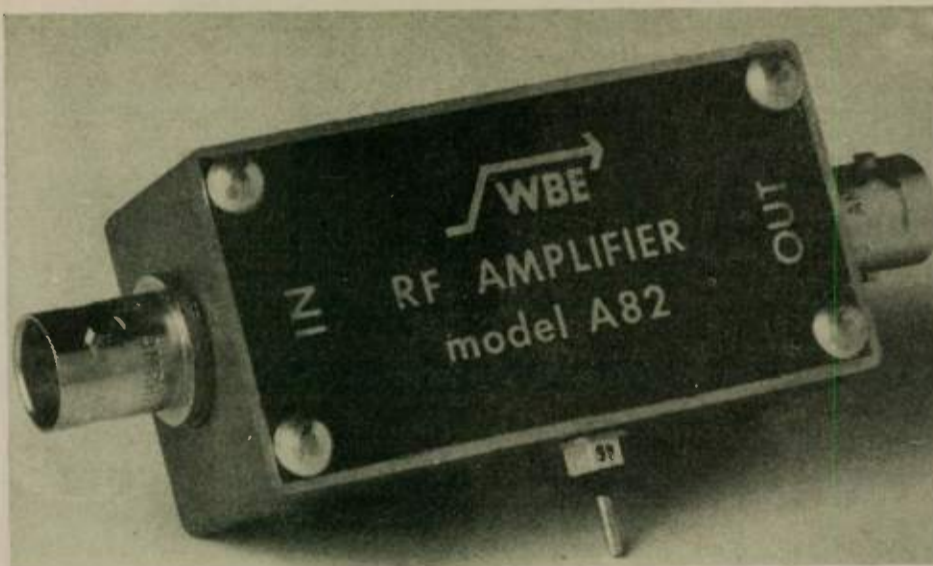
Beacon Frequencies-

29.502 MHz CW, AFSK-RTTY  
145.975 MHz CW, AFSK-RTTY  
435.100 MHz CW, FSK-RTTY  
2304.0 MHz CW

Transponder Frequencies

145.85 - 145.95 MHz input  
29.40 - 29.50 MHz output  
(non-inverted passband)  
432-15 - 432.175 MHz input  
145.975 - 145.925 MHz Output  
(Inverted passband)

(please turn to page 22)



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(See QST Review, May 1973, pg 41)

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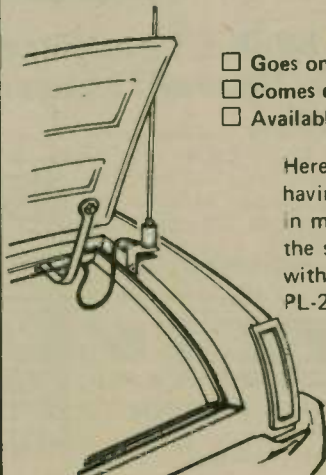
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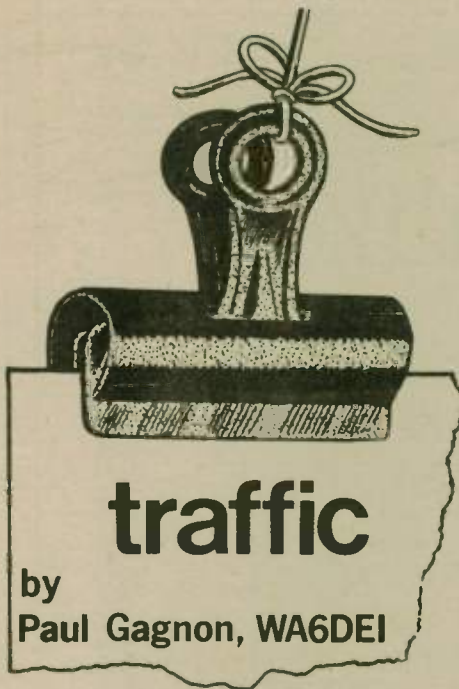
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# traffic

by  
Paul Gagnon, WA6DEI

## WHERE YOUR TRAFFIC GOES

When you originate a message to someone across the country and you get a reply in a few days you may think that it's great.

But you have no idea of how the message got there and back. Perhaps more would originate traffic if you knew how the net system worked. There are several methods of getting your message traffic from coast-to-coast. The national Traffic System of nets is the oldest and provides the best coverage. The messages are handled mostly on CW, however the beginning and ending of the trip are often on SSB. The fairly new Daytime National Traffic System utilizes mostly SSB to cover the country during the daytime and supplements the NTS.

Also existing are independent nets with varying coverage like the 7290 traffic Net, the Hit and Bounce Net, the 75 Meter Interstate ISSB and the Early Eighty Free Net. You can check into these nets directly with traffic and if you are lucky there may be someone on the net in the city your traffic is for. But since this is not too likely when your message is for a small town,

let's originate a hypothetical message in Los Angeles and see how it gets to Georgia.

We have previously covered what a message in "standard" format should look like. You will see why it is necessary to have a standard message format since so many different people will be handling your message.

Since you are in LA and have a message to send you must find out where the nets in your area meet. If you have a copy of the "Net Directory" (free from ARRL for an SASE) you simply look up Los Angeles and find your local traffic net. If you do not have a directory get on the air and ask someone where and when your local net meets. When you check into the net, the net control will tell you who to send your message to. Now it's on its way ..... but how is it going?

The National Traffic System (NTS) consists of four levels of nets which operate in an orderly time sequence to let your message flow in an orderly manner with the minimum of delay to its point of destination. These are Local, Section, Region, and Area nets. We have discussed how to check into these nets in an earlier column.

The net you have just checked into was probably your local net. The Local net is the one that covers small areas such as a city, county or suburb. They are often on VHF and sometimes call themselves "emergency nets". The only requirement is that the net have regular liaison to the NTS in order to be part of the system. The liaison is to get traffic out into the regular system and also to get incoming traffic back into the local area where it can be telephoned to the addressee. On the Local net you have sent your message to the station designated as the liaison station who will collect all the messages going out of your local area and will take them to the section net.

The Section net is the next level of the system. This net generally covers your ARRL section. Two or more sections may combine to form a single Section net such as the Northern California Net (NCN) and in this case, the Southern California Net (SCN). Generally all stations are invited to check into the section net. This is probably where you can be assured of a direct daily inlet into the system.

In some areas the section is so large that the section net may consist of only repre-

sentatives from each of the local nets within the section. Sections may have more than one net (e.g. CW, AM, SSB, VHF, RTTY, etc). The section net is administered through the section Communications Manager who usually puts a Route Manager (CW) or a Phone Activities Manager (phone) in charge. The purpose of the section net is to handle intra-section traffic (i.e. for traffic within your section); distribute traffic coming down from higher level nets across the country, and to clear inter-section traffic to the man designated to carry the traffic to the next higher level net which is called the Region net. When the Liaison Station from your local net checked into the section net (SCN) he was told by the net control to send the message to the liaison man who is going to the Region net.

The Region net is where it starts to get a bit different. This net consists of only representatives from the section nets in the region. So the Liaison man from SCN has your message and he checks into the Region net (in this case the Region six net RN6) and passes it to the man going to the Area Net. (The next level). At the region level participants are (1) a Net Control Station, (2) representatives from the sections in the region, (3) designated stations taking traffic to points outside the region, (4) stations bringing traffic back from higher nets, (5) stations with traffic for some point in the region other than his own section. The purpose of the region net is to exchange traffic to the liaison stations going to the area net, and to distribute traffic coming into the region to the proper section representatives.

The top level of NTS is the Area Net. We have three area nets, Pacific, Central and Eastern. The area net is analogous to the region net since it has representatives from other regions nets in the area. In our case, the RN6 Liaison man checks in with your message and the NCS directs him to send your message to the Transcontinental Corps. (TCC) station who is going to the Eastern Area Net. The TCC is a group of stations who make schedules on their own and pass Inter-Area traffic between them. The Sked to EAN will meet sometime prior to the meeting of EAN the next day. Your message will then go through the opposite process, from Area (EAN), to Region (RN4) to Section (GA) to Local (the city) nets where it is now delivered. A day has elapsed since you started the message. It takes a day since in our example we are going against the

time zones. A message originating on the East Coast gets delivered on the West Coast within a few hours, since we are then flowing with the time zones.

An interesting and fun way to get the hang of the system is to originate a message and send it on your local or section net and then follow the message through the various nets by listening to each net and to each liaison station as he sends your message. Times and frequencies of the net meetings can be obtained from the net directory.

## ABBREVIATIONS:

As noted in the SCN "Zero Beat" for August: Ed Brichta, W6RSY, noted that the use of abbreviations on CW is most important. Ed cited an example of a message he relayed toward River Falls, Wisc. 54022. Somewhere along the line, someone dropped the zip code, and abbreviated WISC to WI. Ed got a service message back from Pascagoula Miss (which has a zip of 39567). Somehow WI got changed to MI, and was routed to Miss, even though MI is the abbreviation for Mich. Let's watch those abbreviations.

## QSL BUREAU TRAFFIC

Special Note for California Traffic Men... The W6QSL bureau is being transformed to the LA area Council of Amateur Radio Clubs. Some of the clubs will use NTS to inform amateurs that they have cards at the bureau and what envelopes are needed. The following is the standard "QSL Bureau Test"; Check 26; "You have cards at QSL Bureau X Please send five by seven point five inch SASE to W6LS 2814 Empire Ave Burbank Calif 91504 x 73 -- Sig W6 QSL Bureau --" (from SCN Zero Beat)

## W6BHG

We regret to note the passing of Hank Garman, W6BHG, from Long Beach, Calif., in June, 1974. Hank was active on SCN (So. Calif.) and other nets back at least as far as 1949. He was always there and gave many a newcomer to traffic handling a hearty welcome and invaluable pointers. Hank was a retired Radio Warrant Officer from the Navy and he will surely be missed by all the old traffic men who knew him throughout the years.

## AMATEUR RADIO TELEGRAPH SOCIETY

Hubert Williams, W5UH, has created a new organization known as the Amateur Radio Telegraph Society. The purposes are (1) organize CW amateurs to present a united front to resist any efforts to re-allocate any of the CW frequencies, (2) promote the art of amateur radio telegraphy and stimulate interest in CW. If you are interested, and if you are a CW operator, you should be, drop Hub a line at PO Box 1553, Silver City, New Mexico 88061.

## NCN

Dan, W6QNB, the Secretary of NCN (No. Calif.) notes that check-ins are up considerably from last year. However, still needed are stations to check in from San Francisco, Marin, Sacramento, Stockton, and the northern Peninsula. They will slow down to any speed you desire so check in and lend a hand with deliveries to these areas. Dan will send you a packet of information about the net operations if you like. Write Dan Drath, W6QNB, 136 Trinity Lane, Portola Valley, California 94025.

Remember, send me any information you would like disseminated and let me know your ideas for the column. I'm happy to voice opposing views.

It has been said that a QSL card following a contact is very much like a welcome visitor coming to your door and such a card can function not only as an expression of appreciation for having met the person, but also provide a certain pride of achievement as well as being used for award purposes.

(NCDXC "The DXer")

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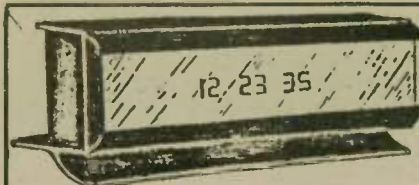
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# profile



KAY ANDERSON - W8DUV

was presented

## ROANOKE DIVISION ARRL SERVICE AWARD

by Harry Dannals, W2TUK, President ARRL

One of the highlights of the year around these parts is the selection of one of your members to be the recipient of the Roanoke Division ARRL Service Award. The pur-

pose of this award is to give recognition to amateurs who have contributed their time and energies over a period of several years in behalf of the organizational aspects of amateur radio.

So this award is not for the "flash in the pan" or short term star - but for the fellow who delivers the goods on a sustained basis. This award is one that attempts to separate the men from the boys.

As it turns out, this year's award goes neither to a man nor a boy, but to a very lovely gal by the name of Kay Anderson, W8DUV.

Kay was first licensed as WN4BLR in Richmond, Virginia. She and her husband were active members of the Richmond Amateur Radio Club, where Kay took an immediate interest in traffic and public service work. During the period from 1955 to 1959 she often piled up traffic totals of over 400 messages per month.

She received the ARRL Public Service Award for her participation in hurricane emergency work during this period. In 1954, Kay turned in the top YL score in the novice roundup. In 1955, and again in 1956, she was cw winner in the YL-OM contest, attesting to the fact that she is and has always been an on-the-air type of amateur.

In 1958, Kay served as Vice-President of YLRL, the Young Ladies Radio League, and in 1959 was chosen as YL Chairman at the Roanoke Division Convention held that year in Richmond. In 1959, also, Kay was elected to the national presidency of the YLRL.

In 1962, Kay and her OM Ed moved to Huntington, West Virginia, where she ac-

quired her present call W8DUV --- Ed became W8DUW. Setting up their station in Huntington, Kay was soon active again, and in 1962 and 1963 she won second place on cw in the YL-OM contest.

It was here that Kay launched into organizational amateur radio in a big way. She served as secretary for the West Virginia ARRL Radio Convention in 1963, 1964 and 1965. In 1968 and 1969, she was secretary of the West Virginia State Radio Council. She was appointed to the office of Assistant Director of the Roanoke Division in 1968 and has continued to serve in that capacity ever since.

In 1969, Kay was co-chairman of the Roanoke Division ARRL Convention held at Huntington, West Virginia. She served in 1968 and 1969 as secretary for the Tri-State Amateur Radio Club of Huntington. In 1969 Kay performed as communications chairman of the Powder Puff derby station at Huntington, West Va. airport, as operator of an official broadcast station on teletype for Army MARS and as Chairman of the Roanoke Division League Officials meeting at Greensboro, North Carolina. She also found time during the year to make appearances at local hobby shows to promote the cause of Amateur Radio.

1970 saw Kay receiving some well-deserved recognition for her efforts: she was named Amateur of the Year at the Dayton, Ohio, Hamvention - being the first YL ever to be so honored. Later that same year she was selected to be recipient of the West Virginia Outstanding Amateur Award for 1970. In 1971 Kay appeared on a number of Huntington radio and television shows in promotional efforts in behalf of Amateur Radio.

In 1972, Kay served as chairman of the Annual West Virginia MARS State Meeting,

and was an active participant, together with OM Ed, in providing relief communications following the Buffalo Creek flood disaster of that year. She also found time to serve as co-editor and publisher of the West Virginia Army MARS Bulletin and to function as senior Net Control Station of the MARS voice net.

This year, so far, Kay --- together with Ed, was selected as co-winner of the First Army MARS Commander's trophy ... the highest honor to a MARS radio operator in a 17-state area. She served as chairman of the 1973 ARRL State Convention at Jacksons Mill in July ... and a highly successful affair it was too, with many innovations and surprises.

Kay, we should point out, is active on cw, single sideband, radio-teletype and 2-meter FM. She is a member of the A-1 Operators Club, holds the 30 word-per-minute code proficiency certificate, Official Relay Station and Official Phone Station appointments and has worked all West Virginia counties.

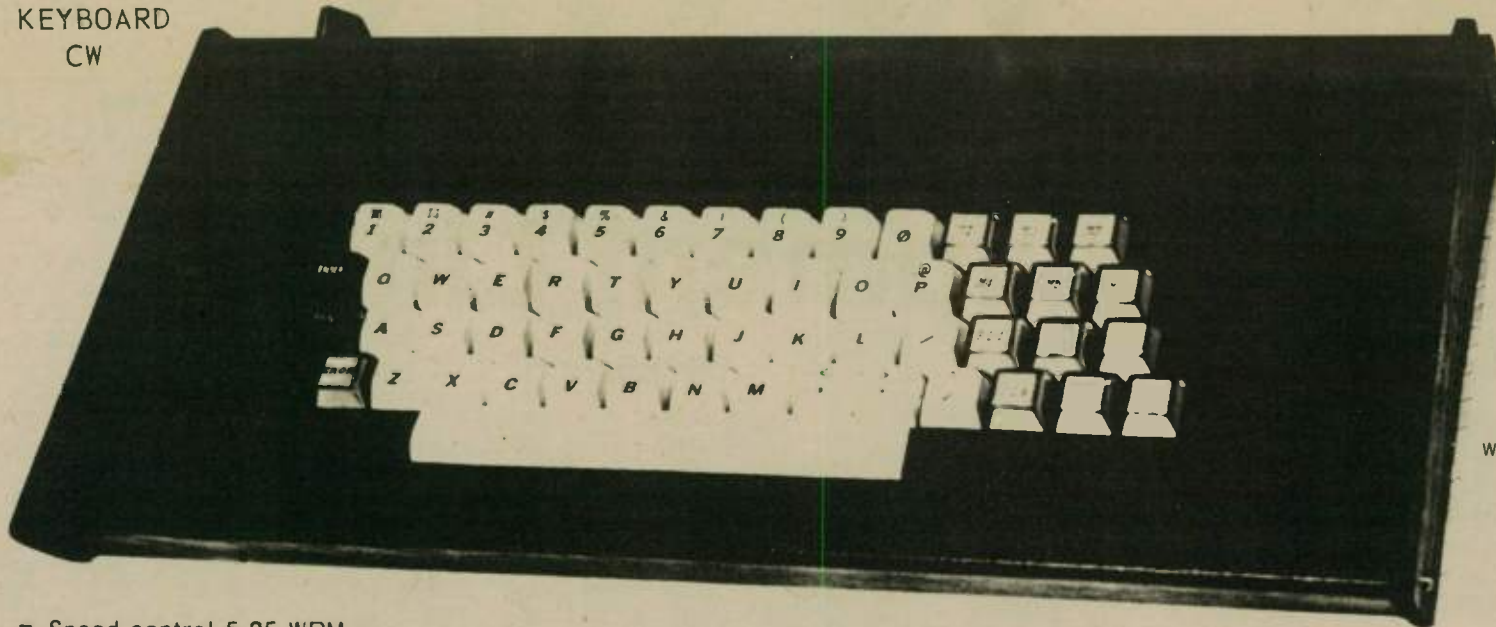
Kay is a balanced amateur in the best tradition of the Radio Amateurs Code! She is employed by the C & O Railroad as a secretary; she is also secretary of the Better Service Club of the C & O. She is a member of the Eastern Star, the Baptist Church of Huntington, and the P. T. A.

P. T. A. ??? Oh, yes, we should mention that she is the mother of five children, ranging in age from 13 to 21.

The Roanoke Division is pleased to present this award in sincere appreciation for Kay's considerable accomplishments and her great and sustained efforts in behalf of this great avocation which we share.

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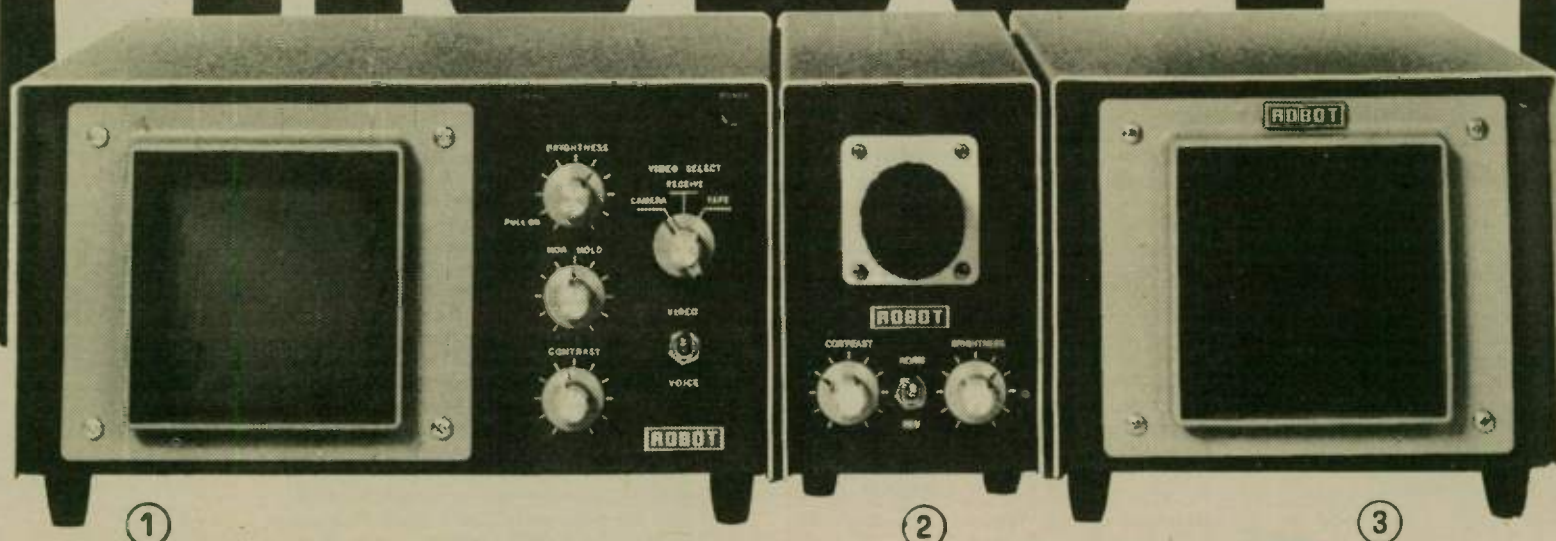
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# Northern California REPEATERS

(Bakersfield and North)  
Compiled at Concord meeting 21 Sept 1974

INPUT	OUTPUT	CALL	AREA
146.01	146.61	WR6ACW WR6AFO WR6AGG*	Sac. Vly SJ Vly SF Bay
146.04	146.64	WR6ABD W6CPK	SF Bay Lake Co
146.07	146.67	WR6ABK* WA6ZSR WA6ZUB*	Sac. Vly Cen Vly So SF Bay
146.10	146.70	WR6ACS	SF Bay
146.12	147.71	W6JPU	SJ Vly
146.13	146.73	WR6AEE WR6AES	SF Bay SF Bay
146.16	146.76	WR6ADE WR6ADI WR6ADS WR6AFZ WR6AGI WB6NHF	SF Bay Sac Valley Cent Coast No Sac Vly Stockton Eureka
146.19	146.79	WR6ACI WR6ADU WR6AFS WA6DVY K6GZV	SF Bay Sac'to SJ Vly Monterey No Cen Cal
146.22	146.82	WR6ABM WR6AEL W6JPU WB6TJJ	SF Bay, Sac Cent Coast SJ Vly Fresno
146.25	146.85	WR6ADY(2) WR6ADZ(1) WR6AEA(3) W6ICO WR6AFH	SF Bay SF Bay SF Bay No Sac Vly SJ Vly

146.28	146.88	WR6ACV WR6AFP(6) WB6OPG(7)	SJ Vly, Sac V SF Bay So SJ Vly	147.87	147.27	WR6AEI	Sac Vly, SF B
146.31	146.91	WR6ACE WR6AEN WR6AEO WB6SXC	So SJ Vly Sac Vly SF Bay, Sac V SF Bay	147.90	147.30	WR6ADR WR6AFA WR6AGK	SF Bay SJ Vly Sac'to
146.34	146.94	WR6ACG WR6ACU WR6ADF(1) WR6AGL(2) WR6AGT WR6AGU(1) WA6IOK	E. Cent SJ Vly SF Bay No Sac Vly Eureka No Coast Sac'to	147.93	147.33	WR6ABG(8)	SF Bay
146.37	146.97	WR6ABX WR6AEZ	Sac Vly Monterey	147.96	147.36	WR6ACZ	SF Bay, Sac V
146.385	146.985	WA6HHQ	SF Bay	147.99	147.39	WR6ABZ* WR6ACH* WR6ADX WR6AGJ*	Sac'to No Sac Vly SF Bay Sac Vly, SF B
146.40	147.00	WR6AGL* WR6AGM* WR6AGN*	No Sac Vly Sac'to Sac Vly, SF B	Notes:			
146.55	147.57	WR6ACM	Sac Vly, SF B	* Closed repeater			
147.63	147.03	WR6AEV(6) W6BXN	SF Bay SJ Vly	(1) 1800 hz burst access			
147.66	147.06	WR6ACP W6CX	Sac Vly, SF B Sac Vly, SF B	(2) 1950 "			
147.69	147.09	WR6ACU WR6ABY	SJ Vly SF Bay	(3) 2100 "			
147.72	147.12	WR6AFF WA6ODP	Sac Vly Livermore	(4) 2250 "			
147.75	147.15	WR6ABH*	SF Bay	(5) 2400 "			
147.78	147.18	WR6AFU(1) WA6HMP	SF Bay, Sac V SJ Vly	(6) P. L.			
147.795	147.195	WB6USH	SF Bay	(7) 2200 hz Whistle Access			
147.81	147.21	WR6ABF*	SF Bay	(8) RTTY			
147.84	147.24	WR6ADC	SF Bay	(Next month: A repeater list from another part of the country.)			



## maritime mobile

by Bill Yost, WA6PIU

### THE CAT WHISKER MARITIME MOBILE ANTENNA

Perhaps the greatest goal of antenna engineers has been to get a big signal out of a small package.

While it is true that active antenna designs consisting of bobby-pin size whips have compared with a full 1/4 wave vertical on receive, there has been nothing to compare with a resonant length for transmitted radiation efficiency. Unfortunately, when we go mobile, we must use loading coil to provide resonance -- coils that reduce your 200 watt rig to a QRP special. The same is true for small boat installations. While salt water makes an excellent ground, we are still confronted with space problems, (Please turn to page 36)

So frequently we hear, while listening around the band, comments on other repeaters (and simplex, too) by amateurs in the area about how WR8ABC is the "best" repeater in the region; that even though they belong to another club they admit that 16/76 in Cleveland is "the machine". Sure is nice to hear and a credit to the equipment and the fellows who do the work on it, isn't it? Perhaps it can be said that WR8-ABC has a style and class that sets it above the others; for instance, excellent meetings with great attendance and good programs, experienced users willing to help newcomers who have problems, a regular newsletter and a continuing effort to improve both the system and the capability of those who use it toward "professionalism." If we sound like we're tooting our own horn, well we are and we invite you to join us in doing so as members of "The Cleveland Repeater".

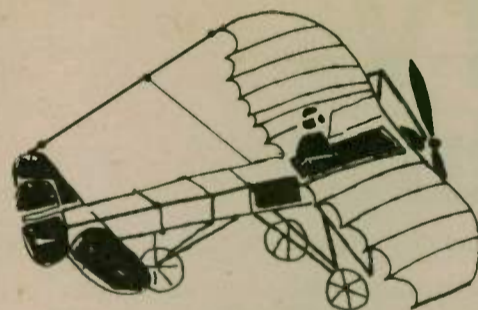
(WR8ABC "Newsletter")

required to "rough it" in automobiles. If you hate to drive a car as much as I (impossible!), to ease the trauma of land travel, you might consider dropping a receive crystal for your local tower or unicon frequency in the mobile two-meter rig. It works great in most transceivers and is a welcome break from repeater chatter while barreling down the congested, unsafe highways and byways. I have run into one slight problem: When hearing tower instruct an aircraft to make a ninety degree left turn, I find myself hitting the brake and banking my Buick into the median.

Flight Service Station ATC specialists are among the greatest people around. Certainly they hold the respect of anyone who flies. It is out of this respect that one hates to "bother them" for a telephone weather run-down when calling only for curiosity and not bonafide flight planning. Comprehensive aviation weather is available right in your hamshack, twenty-four hours a day. It's too bad that the 200-400 KC VLF band has the reputation of possessing nothing other than radiobeacons and summer-static (what better time to learn to fly...). Nothing could be further from the truth. The FAA maintains many VLF weather broadcast stations which continuously offer forecasts, reports, winds aloft, surface conditions, pressures, SIGMETS, AIRMETS and ... well, anything available in the FSS flight planning room is heard day and night on some station not too far from you!

All this weather information can be available right in your own shack for, at most, \$15.00. Most any surplus electronic outlet has a variety of mint condition or unused aircraft beacon receivers available for from five to ten dollars. Keep in mind that most of the units operate on 24 volts.

Let's hear from you. A lot of interesting things are being done airborne and this is the place to read about them. In coming



## aeronautical mobile

by Vern Weiss, WA9VLK

Welcome cool weather!

I have been sitting here chewing on a sectional map, trying to determine if crummy, 'ol hot summer has anything over nice cool chilly fall. The only thing I can think of from an amateur radio and a pilot viewpoint is that summer holds for me three lousy weeks' vacation. Other than that, cool weather brings improved airplane performance, less turbulence and stable band conditions. What more could a human being want?

Pilots who frequent the pages of flying magazines can recall the very "hip" guy with the red sport jacket in a certain learn-to-fly curriculum ad. Year after year he is there to tell you that when spring arrives there is no better time to learn to fly. When summer comes, he gushes, "What better time to learn to fly than summer?" And then fall. And winter. Ad nauseum. Well I have donned my red sport jacket and am gleefully going to say that fall is a gr-r-r-eat time to fly ....

radioactive! Conditions on the bands become good with the antenna at thirty feet; but at three thousand feet, the bands are fantastic! Besides that, you can view one very gorgeous world below while operating.

VHF-FM has found it's way into many cockpits because of, 1. Convenience. And 2. Convenience. You can't deny that one must hold great contempt for the easy way, to operate low bands from an aircraft. I think that I am pretty safe to say that most who fly for fun don't fly DC-3s, Connies and Ten-Elevens. That puts our average airman in the light plane category with restrictive space and abundant desire. CW operation is a ball from an airplane as long as there are four hands in the cockpit; two for flying and two for hamming. The best low band route to follow is Ten-Tec or Atlass.

Because the rig can be mounted most anywhere, the biggest problem an HF'er will confront is the antenna installation. Save dragging it behind you, the easiest way I have found has been a random length of insulated wire wrapped around the fuselage aft the cockpit and topped-off with an antenna tuner. I have heard of fellows stringing it from wingtip to landing gear to rudder to wingtip. Being cautious, I have not gone this way. I am afraid that the well-designed aerodynamic qualities might become undesigned which could prove to be (if you will excuse the pun) a real drag.

In the Midwest there is more and more air mobile activity. In fact, I have noted, it is not only using Cherokees and Skyhawks. A few weeks ago a Stearman biplane took to the air on the air. Unfortunately, I am afraid the \$35/hour rental had a big effect on open cockpit, two-meter barnstorming, for it was heard just once.

The laws of gravity always win and sooner or later the pilot must return to foreign territory, earth. Once down, birdmen are

## SELECTRONICS Says "Thanks"

We'd like to thank our many fine customers who have made this past year a good one for us.

We're at our new location with bigger and better premises and facilities to serve your needs. We have a complete service center oriented towards amateur and communications gear.

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See us for the new Drake line, the ICOM synthesized equipment and ATLAS.

The coffee pot is always on, so drop in.

Norm Lehman, WB6SBR

### SELECTRONICS

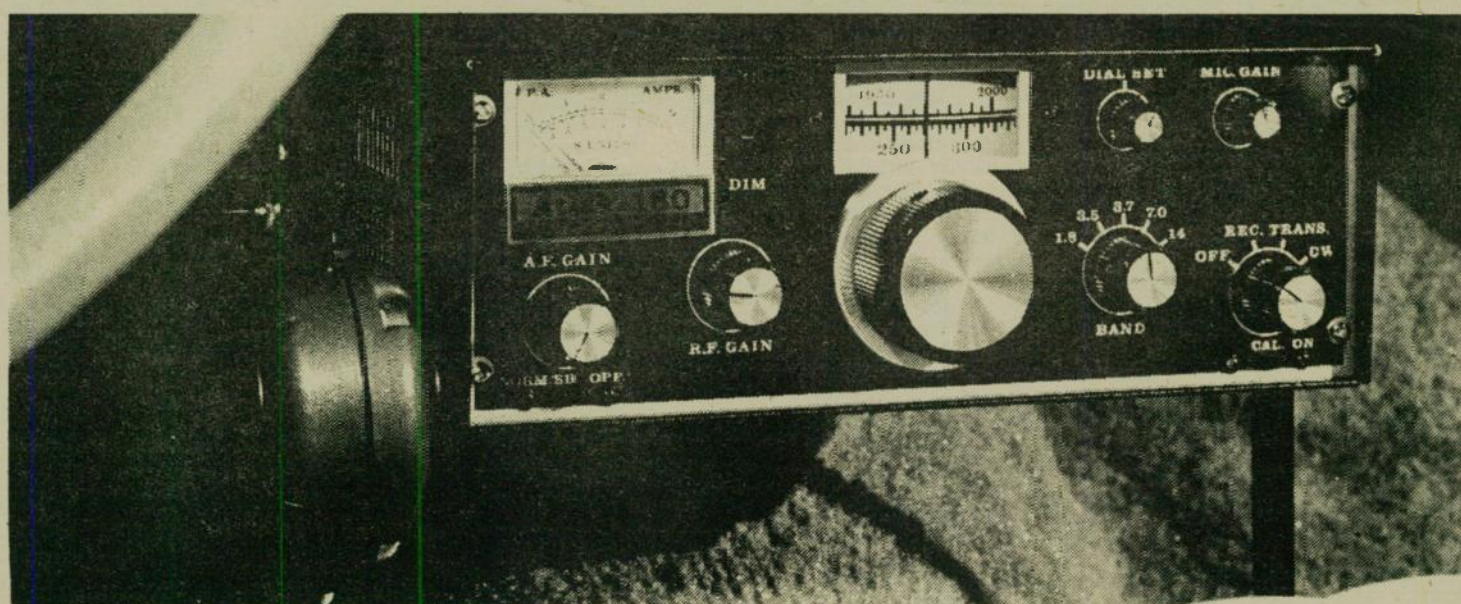
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SUNDAY, OCTOBER 27th

7:00 Organizational Breakfasts  
9:00 Sister City Program - Chuck Towns  
9:00 Hidden Transmitter Hunt. 146.52 MHz  
9:30 Mobile Judging.  
10:00 ARRL Forum, Harry Dannels,  
W2TUK, President ARRL, and  
Doc Gmelin, Pacific Division Dir.  
12:30 Main Banquet. Mr. A. Prose Walker,  
Chief Amateur & Citizens Division  
FCC - Speaker.  
Other Speakers: Harry Dannels,  
W2TUK; Doc Gmelin, W6ZRJ;  
Joseph Rose, NCS.

### SATURDAY

- 8:30 FM Receiver Circuits  
Tom Mills, K6KLE
- 9:30 New IC Goodies for General Ham use  
Art Fury, WA6JLJ
- 10:30 Question & Answer Period
- 11:00 California Amateur Relay Council  
Forum.
- 12:00 Conducting FCC License Courses  
Art Mayoff, VE2AQV
- 1:00-5:00 MARS/Amateur Radio-Disaster  
Communications Conference  
Ellen White, ARRL Com. Dpt.
- 1:00 Federal Disaster Assistance  
Administration (FDAA) General  
Services Administration (GSA)  
Disaster Operations Col. Tom Lew,  
FDAA/GSA/ Communications Coordi-  
nator and FDAA/GSA Staff.
- 2:00 Military Natural Disaster Communi-  
cations Operations, U. S Army 11th  
Signal Group-Fort Huachuca, AZ
- 3:00 State of California Office of Emergency  
Services (OES) Disaster Communications  
Operations. - Mr. Marion Hensen, State  
RACES Officer and Staff.
- 4:00 Area and Division American National  
Red Cross Disaster Communications  
Requirements. Wally Reed, ARC  
Disaster Services.
- 5:00 Army MARS Meeting.

Air Force Meeting Room - To Be Announced.

The Worldradio News, October 1974

### SATURDAY

- 8:30 Propagation During the Sunspot Cycle  
Vic Frank, WB8KAP, SRI
- 9:30 Antenna Design Then and Now  
KLM Electronics
- 10:30 Question & Answer Period
- 11:00 Northern California DX Club Forum
- 12:00 Northern California Contest Club Forum  
Ellen White, W1YL, & Contest Comm.
- 1:00 Towers - Zoning and the Law  
Ed Peck, K6AN
- 2:00 EIMAC Tubes  
Merle Partin, K6DC/EIMAC
- 3:00 OSCAR 6 and 7  
Chuck Towns
- 4:00 ARRL Visitor
- 5:00 Navy MARS Meeting
- 6:30 Joint MARS/AREC/RACES Banquet  
Armond Noble, MC, Joseph Rose,  
Deputy Manager National Communi-  
cations System-Speaker

9 PM (12 Midnight) Newington Time

Wouff Hong Ceremony Sir Lancelot Room

Friday, October 25

- 6 p. m. Registration- Second Floor  
Rotunda
- 8 p. m. Welcome to the 1974 ARRL  
Pacific Division Convention Party

### SATURDAY

- LADIES PROGRAM  
Sir Pellimore Room
- 12:00 Ladies Luncheon
- Entertainment by Mark Gaetano of  
"The Campbell Gaslight Theatre"  
Gaslight & Ragtime Piano
- PRIZES
- 2:00 Larry Reed, W6CTH  
3 Dimensional Travel Slide Show
- "Adventures in Russia"

### SUNDAY

- 2nd Annual Ladies Hobbyfest

### PRE-REGISTRATION DEADLINE OCT. 17

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Please reserve \_\_\_\_\_ OM tickets and \_\_\_\_\_ YL/XYL tickets for the 1974 Hamfest at \$12.50  
\$15.00 after Oct. 17

Please reserve \_\_\_\_\_ YL/XYL Luncheon Tickets at \$5.50 each

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# clubs

CLOUT

by Vic Clark, W4KFC, VP ARRL

Occasionally one hears the argument advanced that to join forces with others in a cooperative effort is to sacrifice, in some manner, one's independence and "clout".

Perhaps so, but history has recorded the passing of many a loner and faction whose "pride", spirit of independence (or perhaps just plain orneriness) somehow kept them from becoming a part of a larger, mutually protective effort. The process of evolution has demonstrated a sobering consistency for phasing out species failing to ally themselves with their fellows against external hazards.

Surely anyone who has the moxie to qualify for an amateur radio license is also capable of perceiving the importance of protecting the privileges thus won - in fact, many subscribe to an even nobler purpose... the improvement and perpetuation of the amateur radio service. However, some of us tend to be individualistic, and that otherwise desirable characteristic often seems to cloud our judgment in matters calling for cooperative effort.

For example, we threaten to withhold our support of our radio club or the League, or other group endeavor, because of some real or presumed deficiency in them, grimly rationalizing that we somehow sacrifice our individual freedom or "clout" by entering into a common cause. Yet, in our sober moments most of us recognize that a solid front is vital to the future well-being of Amateur Radio in an increasingly competitive and organized society.

Nobody is perfect... neither is any organization, including the ARRL. But we would do well to spurn neither our local or National amateur associations because of their imperfections. There must be a higher destiny, too, than merely tossing rocks from curbside at the passing parade. Rather, the key to survival would appear to lie in working together for the common good, endeavoring to bring about improvements in the way we conduct our collective affairs.

The future of amateur radio cannot simply be taken for granted. Indeed, we could exit the way of the dodo (and many other special interest groups) if we fail to perform as a team in meeting the challenges ahead. "Clout" is the product of pulling together... not pulling apart.

(Auto-Call)

SIRA

Sociedad Internacional de Radioaficionados, Inc.  
P. O. Box 480071  
Miami, FL 33148

Almost three years ago, on December 4th, 1971, radio amateurs from various foreign countries set themselves the task of organizing a new international radio amateur society which would be open to all radio amateurs throughout the world, and which would be dedicated to fostering international brotherhood and goodwill.

At that time, as well as now, the board of directors of the organization was composed of eight members who were in charge of direction and orientation. For the newly elected board of directors of 1974, the task of directing the organization has increased greatly because of the expansion which has occurred, and because of the objectives which the organization has undertaken.

Although the group is relatively new, its accomplishments in providing assistance to others are already well known in many countries. In the case of the Managua earthquake, for example, the society provided not only immediate technical help, but also assistance in the collection of medicine and food. Other examples of vital assistance were providing communications to a commercial airliner in a distant country, which saved time and effort in the rescue of the survivors, arranging for the delivery of a small pace-maker which saved a patient's life, and obtaining a medicine which helped a cancer victim overcome his illness.

Therefore, in view of the past accomplishments of the organization, the new board of directors propose to improve and expand the relations between the FCC (Federal Communications Commission) and the radio amateur; to better inform the public of the service which the radio amateur is providing the community; installation of 2-meter FM Repeater Station which will allow radio-equipped automobiles to contact each other throughout Dade County and adjacent areas, which will prove invaluable in times of emergency; a campaign at all levels to obtain a headquarters building for the society; to ask for financial assistance from the Latin Chamber of Commerce, radio and television stations, press, as well as Spanish-speaking commercial and private enterprises of the City of Miami; continue relations with other national and international radio clubs, including the exchange of ideas and technical information; increasing the circulation of the club bulletin as well as the weekly radio bulletin; to plan programs with official agencies such as Civil Defense, the Latin Red Cross

of Miami, the International Red Cross, and other emergency networks and organizations; to have SIRA represented at conventions and functions of other affiliated organizations; the continuation of traffic networks to pass messages during Mothers' Day, Fathers' Day, Christmas and New Year. For the members who live in the Miami area, and for those who are visiting from other countries, the Board of Directors has prepared a program of functions which will take place during the remainder of 1974, and in 1975, beginning with a picnic on Sunday, the 27th of October, and later the traditional fraternal dinner on the last Sunday of December. In February of 1975, a bingo is planned to help raise funds for the new headquarters and in May the society will be holding another picnic. The Educational Committee will be reactivated for those who want to learn to become radio amateurs, or for those who would like to improve their knowledge.

The Board of Directors requests the assistance of all of the members in order to carry out its program for the coming year, and to be able to continue spreading brotherhood and goodwill.

Miami, August 30, 1974  
The Board of Directors

PUERTO RICO

by Don Caldwell, KP4DOP

The Radio Club de Puerto Rico was represented by several of its members during the Mundo Basket world tournament, with the installation of club station KP4ID in the lobby of the Helio Isla Hotel. The station attracted many persons, including some of the participants in the tournament.

Band conditions were poor, but many contacts were made, and it was surprising to see so many people interested in our activities. Even some of the players took time off from their rest periods to chat with us about our hobby. We especially

## attn: clubs

How would you like to go on Field Day in a Winnegabo instead of that drafty old tent. Or possibly operate from Fiji or the French Riviera. All it takes is money. And we've got it for you. All you have to do to fatten the ol' club treasury is accept our generous commission for selling "Worldradio" subscriptions through your club.

We wanted to know if our proposal was a good one so we asked a few people who knew something about money what they thought of it. From Arriflex Onnasty came this comment, "If I had such a deal I would have never gone into chips". We turned to Jay Saul Getter who mused, "Looks better than a soil well". Nellie Stonefeller opined, "If my grandfather had received an opportunity like that he could have given away quarters instead of dimes. Through his spokesman, Clifford Earring, E. Howie Hues said, "It sounds so good I'm considering leaving my penthouse so I can get in on it too."

So, who are we to argue with such financial genies. To get full details just write to H. Ellie Huntz, Worldradio, 2509 Donner Way, Sacramento, CA 95818

remember one visitor from the Soviet Union who said he was very well impressed with Puerto Rico and thankful for all the courtesies everyone offered him.

Certainly, this type of ham radio activity is helping us create a good public image in a lasting manner. These public demonstrations are very favorable and show to the public who we really are--deep inside ourselves.

But, really, just who are we? We are people from all walks of life, who like to spend some of our spare time experimenting with radio communications, and idly talk with others just like us over the airwaves. No one would really know us, or realize the services we can render, until a situation is created when our services would be needed.

We, as radio hams, should always be prepared for the unexpected and be ready for an emergency. This is truly so, now that we have entered the hurricane season. In this respect, the Radio Club is sponsoring an emergency drill to determine the capabilities of our radio hams as a communications network in the event of an emergency.

(Onda Terrestre)

## MM

(continued from page 34)  
necessitating traps or tuners to make up the difference.

As a solution to the space-efficiency problem, M2 Electronics in Southern California has come up with the Cat Whisker antenna. The whisker, as the name implies, consists of eight opposed horizontally polarized radiators emanating from a center hub. Four band operation (40 thru 10) is possible with only one 50-ohm feedline required. All this is packed onto a system measuring only 14 feet across and weighing 15 pounds.

So much for the sexy appearance, the compactness, and convenience. How does it work?

The most noticeable characteristic of the antenna is its low angle of radiation. My first QSOs after assembling the unit (30 minutes) were on 40 meters during the day. With short skip conditions, my inverted V did a much better job. The real test, however, came later on 20 meters. On long hauls (South America), we actually got reports comparable to that of a three-band trap yagi. Later in the evening we found that the 40 meter performance also increased as a function of distance.

Part of the problem with comparisons involving the vertical antenna, was finding a good installation. To get any kind of efficiency, an extensive radial system is required (like 50 elements around the base). (Please turn to page 39)

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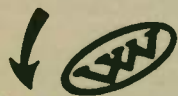
## ELECTRONICS MONTHLY NEWSLETTER

The ELECTRONICS MONTHLY NEWSLETTER is written for the student, technician or hobbyist who wants to learn electronic design techniques. The newsletter goes beyond basic textbook theory to provide practical design information and procedures not available in ordinary textbooks. It explains the limitations of practical components commonly used and shows how to design around these limitations. The effects of the environment in which the circuit must work are considered. These include such things as varying supply voltages, temperature changes, etc. Design techniques such as worst case design, component selection and derating and commonly used rules-of-thumb are explained and illustrated.

The newsletter carries articles on digital and linear circuitry using both discrete and integrated circuit components. Digital articles explain the techniques of logic design, implementation of the logic with circuitry, circuit layout and grounding for high speed logic, and IC usage considerations. Linear articles are concerned with topics such as designing with op-amps, transistor parameters and biasing, feedback, filters, and oscillators. Calculating power transistor temperature rise and heat sink selection is explained for power applications.

Construction articles are included for projects such as lab equipment, demonstration circuits, clocks, hi-fi and radio equipment, many of which are available in kit form. The articles include construction information and complete schematics.

ELECTRONICS MONTHLY NEWSLETTER is issued monthly except September and January. Please send a check or money order for \$10.00 for a one year subscription. A sample copy is available for \$1.00.



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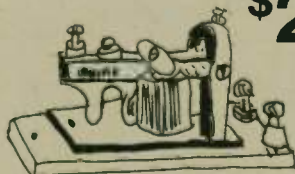
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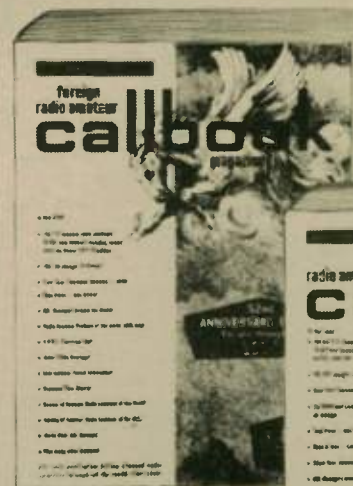
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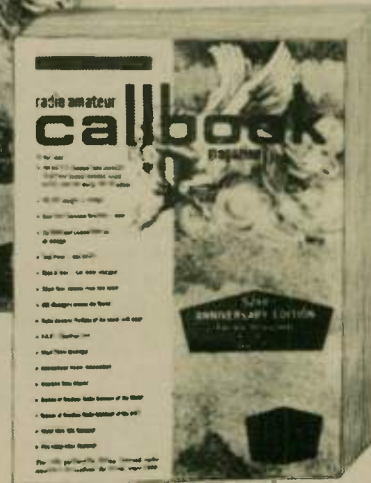
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# Letters

The more Worldradio grows, the more I read, the better I like it. It is improving with age like a good wine... Ken Johnson, W6NKE

I can say Worldradio represents high standards of craftsmanship. Keep it up and best wishes for continued success... E. Hugh Morris, Jr., WB4GLG

Keep up the good work, we need this publication just as much as the others in our hobby... Carl Stengel, W6JEO

Thank you on behalf of the YLISSB for the nice article on page 40 of the last issue of Worldradio News. Please be sure it was greatly appreciated... Dale Miller, Treas., YLISSB, W7CGF and Betty Kuegeman, Pres., YLISSB, K7UXN

Keep up the good work! ... "Gray" Berry, K2SJM

Enjoy Worldradio News very much, and wish you all the luck in the world with it... Wallace H. Leland, W7WL

Congratulations on Worldradio's third anniversary. It gives me a good feeling to be in at the beginning of something so great. I'm looking forward to lots more good reading... LeRoy Youngs, WA0YVT

You are doing a tremendous job and I have every copy of the mag since the very first one (how about that?) Keep up the good work... Robert H. Knapp, W4OMW

My, how you've grown!... John B. Irwin, K6SE/2

# The Worldradio News



an international newspaper

## Fourth Year

The Worldradio News is published monthly by Worldradio Associates.

Offices at 2509 Donner Way Sacramento, CA 95818 USA Telephone: (916) 456-6725

Subscription rates: \$6 per year, \$10 for two years, \$14 for three years, \$36 for ten years, and \$60 for life. IRC's and local currency will be accepted from overseas readers.

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The Worldradio News is two-way communication. Send in Amateur Radio information and news. Share your knowledge with your fellow amateur and "Worldradio" reader. We are most interested in your comments and suggestions. We would appreciate being placed on the mailing lists of amateur club bulletins.

Article contributions and advertising inquiries are invited.

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Rates quoted are for camera-ready ads. If we make up your ad there will be an additional charge reflecting time and materials.

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Hector Tobar, WN6ECA, Hollywood, CA  
Agnes Langevin, W6MFP, San Marcos, CA  
James W. Bland, K4YPX, Memphis, TN  
Stan Willie, WN6DUD, Sonoma, CA  
Barry Summers, WB2GYD, Flushing, NY  
F. E. Cummings, W6OSX, Lancaster, CA  
L. Reiss, W2BR, New York, NY  
Edward Callahan, W6KO, Pebble Beach, CA  
A. V. LaRue, K4BIY, Suffolk, VA  
M. B. Corbett, W6VJW, Pasadena, CA  
Ambrose Hardwick, W2YA, Orange, NJ  
Donald O'Connor, W2UVQ, Binghampton, NY  
Bob Lauzon, WB2NSD, Pittsford, NY  
C. W. McConnell, W4FY, Arlington, VA  
Norman Smith, W5EYK, Tulsa, OK  
D. J. Rech, WB9OJC, Burlington, WI  
Jessi Touhey, W6KKT, Woodland Hills, CA  
Bill Croak, WA6FNV, Fremont, CA  
Glenn West, W3EW, Bethesda, MD  
James Bruning, K2BZ, N. Arlington, NJ  
James Wade, W6SHS, Castro Valley, CA  
J. L. Waller, W8NE, Ft. Meyers, FL  
H. C. Anderson, OZ4FA, Denmark  
Harry Deem, W8LF, Bloomfield Hills, MI  
William Saharoff, W8GJ, Detroit, MI  
Wm. Kaiser, K0RQA, St. Paul MN  
Jack Vest, W5RKA, Houston, TX  
James Okubo, WA6TKQ, Placentia, CA  
Albert Mangold, W6AIR, Los Angeles, CA  
Wm. McCall, Lakewood, NJ  
Van Johnson, W6CWK, Fallbrook CA  
Harold Loring, K4KJK, Charlotte, NC  
Thomas Lovatt, WA7CBB, San Mateo, CA  
E. M. Hicks, WA6SZC, Bakersfield, CA  
A. E. Nielsen, WA6AGA, Concord, CA  
(Continued in next month's issue)



## Communicators

Worldradio Subscriber Roll furnished to further your acquaintance with others of mutual interests.

(continued from last month's issue)  
E. L. Bewley, W6GIW, Turlock, CA  
Charles Crawford, Sacramento, CA  
Norm Haffly, W6FRQ, Sacramento, CA  
F. B. Silveira, K6RAU, Merced, CA  
James Romerdahl, K7OCL, Edmonds, WA  
Hal G. Oakden, WN6DMF, N. Highlands, CA  
Tom Dornback, K9MKX, Downers Grove, IL  
Phil Goodson, W6QDO, San Mateo, CA  
Eugene G. Latapie, W6ACK, Berkeley, CA  
Louis D. Rush, K6QXN, Spring Valley, CA  
Anthony Cirmelli, K6BWI, Alameda, CA  
Thomas Van Norman, WA6UEO, Presidio, CA  
Ernest C. Divine, Jr., HC8GI, Ecuador  
Jay Yake, WA6JDB, Fresno, CA  
Harold McRoberts, K6RN, Red Bluff, CA  
James White, WA0LTP, Crookston, MN  
Earl Bleisteiner, DK1YG, Konstr W. Germany  
E. M. Griffith, W6PQQ, Coronado, CA  
Bruce Fraser, VE3FBE/W6, Daly City, CA  
E. G. Thurber, K8AEA, Petoskey, MI  
Bob Burns, WB6KPR, Sherman Oaks, CA  
Edward Rothschild, Beverly Hills, CA  
Stuart Bollinger, Poughkeepsie, NY  
Ray Green, W4BMF, Port Charlotte, FL  
Dan Felmlay, West Sacramento, CA  
M. C. Towns, K6LFH, Saratoga, CA  
Gordon Beckwith, WB2MQF, E. Pembroke, NY  
Sr. Mary, WA0VJH, Leavenworth, KS  
Lou Welsch, WA3NCP, Parkesburg, PA  
Albert Maiuri, WB6CFV, Gardens, CA  
Stuart Churchon, W6YS, Sacramento, CA  
Claudine Lombard, W0DUL, Greensboro, NC  
"Red" Alexander, WN6DNM, Monrovia, CA  
Herbert Hatton, Carrollton, GA  
Carl Sylvester, San Francisco, CA  
R. B. Shreve, W8GRG, Shaker Heights, OH  
Wm. O'Neill, WN6VUF, El Monte, CA  
Lynn Nelson, WA0WBU, Lankin, ND  
W. Voelkonner, W2HO, Monroe, NY  
Rick Iams, Bethel Park, PA,  
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**ARRL SOUTHWESTERN DIVISION**

MAKE CHECK PAYABLE & MAIL TO:  
**SAN DIEGO COUNTY AMATEUR RADIO COUNCIL**  
 Box 82297, SAN DIEGO, CALIF. 92138

IF MAILED BEFORE OCT. 15TH  
 **REGULAR PROGRAM** ..... \$12.25  
 INCLUDES EVERYTHING PLUS SPECIAL DRAWING

IF MADE AFTER OCT. 15TH  
 **REGULAR PROGRAM** ..... \$13.75 \*\*\*  
 **BANQUET ONLY** ..... \$ 9.75 \*\*  
 **REGISTRATION** ..... \$ 5.50 \*

\*\*\* INCLUDES ALL EVENTS EXCEPT SPL. DRAWING  
 \*\* INCLUDES ONLY BANQUET DRAWING  
 \* INCLUDES EVENTS AND REGULAR DRAWING

REFUND DEADLINE IS OCT. 31, 1974

**REGISTRATION FOR CONVENTION**

DETACH & MAIL TO S.D.C.A.R.C.

NAME \_\_\_\_\_  
 ADDRESS \_\_\_\_\_  
 CITY \_\_\_\_\_  
 YL CALL \_\_\_\_\_ HANDLE \_\_\_\_\_  
 XYL CALL \_\_\_\_\_ HANDLE \_\_\_\_\_

DO YOU LIKE TO ATTEND A BREAKFAST PROGRAM ON:  
 DX  MARS  QCWA  WCARS  
 HF/FM  YL/XYL  CW  
 OTHER \_\_\_\_\_  
 THE WHOLE FAMILY IS COMING AND THEY'D LIKE TO VISIT:  
 THE ZOO  WILD ANIMAL PARK  
 SEA WORLD  STAR OF INDIA  
 HARBOR EXCURSION  
 CABRILLO MONUMENT & LIGHTHOUSE  
 OTHER \_\_\_\_\_



DETACH & MAIL TO HOTEL

**RESERVATION FOR ROOM FOR**

MAIL TO  
**Town and Country HOTEL**  
 500 HOTEL CIRCLE  
 SAN DIEGO, CALIFORNIA 92110

NAME \_\_\_\_\_  
 ADDRESS \_\_\_\_\_  
 CITY \_\_\_\_\_  
 STATE \_\_\_\_\_ ZIP \_\_\_\_\_

	ACCOMMODATION DESIRED	
	GARDEN	HI-RISE
SINGLE	\$ 18	\$22
DOUBLE	\$ 22	\$26
SUITES AVAILABLE ON REQUEST		

DATE OF ARRIVAL \_\_\_\_\_ DEPARTURE \_\_\_\_\_  
 TIME OF ARRIVAL \_\_\_\_\_  
 IF AFTER 5PM FIRST NIGHT DEPOSIT REQUIRED  
 NUMBER IN PARTY \_\_\_\_\_

RESERVATION ASSURED IF RECEIVED BY OCT 15

**ARRL SOUTHWESTERN DIVISION  
 CONVENTION NOV. 1-3, 1974**

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